

- 10.5 In general, there are four alternative Meet-Point Billing arrangements possible, which are: Single Bill/Single Tariff, Multiple Bill/Single Tariff, Multiple Bill/Multiple Tariff, and Single Bill/Multiple Tariff, as outlined in the OBF MECAB Guidelines.

Each Party shall implement the "Multiple Bill/Single Tariff" or "Multiple Bill/Multiple Tariff" option, as appropriate, in order to bill an IXC for the portion of the MPB arrangement provided by that Party. Alternatively, in former Bell Atlantic service areas, upon agreement of the Parties, each Party may use the New York State Access Pool on its behalf to implement the Single Bill/Multiple Tariff or Single Bill/Single Tariff option, as appropriate, in order to bill an IXC for the portion of the MPB arrangement provided by that Party.

- 10.6 The rates to be billed by each Party for the portion of the MPB arrangement provided by it shall be as set forth in that Party's applicable Tariffs, or other document that contains the terms under which that Party's access services are offered. For each Bandwidth Routing Point/Verizon Serving Interconnection Wire Center combination, the MPB billing percentages for transport between the Bandwidth Routing Point and the Verizon Serving Interconnection Wire Center shall be calculated in accordance with the formula set forth in Section 10.17 of this Attachment.
- 10.7 Each Party shall provide the other Party with the billing name, billing address, and Carrier Identification Code (CIC) of the IXC, and identification of the Verizon Interconnection Wire Center serving the IXC in order to comply with the MPB notification process as outlined in the MECAB document.
- 10.8 Verizon shall provide Bandwidth with the Terminating Switched Access Detail Usage Data (EMI category 1101XX records) recorded at the Verizon access Tandem on cartridge or via such other media as the Parties may agree to, no later than ten (10) Business Days after the date the usage occurred.
- 10.9 Bandwidth shall provide Verizon with the Originating Switched Access Detail Usage Data (EMI category 1101XX records) on cartridge or via such other media as the Parties may agree, no later than ten (10) Business Days after the date the usage occurred.
- 10.10 All usage data to be provided pursuant to Sections 10.8 and 10.9 of this Attachment shall be sent to the following addresses:

To Bandwidth:

Kade Ross
4001 Weston Parkway
Suite 100
Cary, North Carolina 27513

For Verizon:

Verizon Data Services
ATTN: MPB
1 East Telecom Parkway
Dock D
Temple Terrace, FL 33637

Either Party may change its address for receiving usage data by notifying the other Party in writing pursuant to Section 29 of the General Terms and

Conditions.

- 10.11 Bandwidth and Verizon shall coordinate and exchange the billing account reference (BAR) and billing account cross reference (BACR) numbers or Operating Company Number ("OCN"), as appropriate, for the MPB arrangements described in this Section 10. Each Party shall notify the other if the level of billing or other BAR/BACR elements change, resulting in a new BAR/BACR number, or if the OCN changes.
- 10.12 Each Party agrees to provide the other Party with notification of any errors it discovers in MPB data within thirty (30) calendar days of the receipt of the original data. The other Party shall attempt to correct the error and resubmit the data within ten (10) Business Days of the notification. In the event the errors cannot be corrected within such ten- (10) Business-Day period, the erroneous data will be considered lost. In the event of a loss of data, whether due to uncorrectable errors or otherwise, both Parties shall cooperate to reconstruct the lost data and, if such reconstruction is not possible, shall accept a reasonable estimate of the lost data based upon prior usage data.
- 10.13 Either Party may request a review or audit of the various components of access recording up to a maximum of two (2) audits per calendar year. All costs associated with each review and audit shall be borne by the requesting Party. Such review or audit shall be conducted subject to Section 7 of the General Terms and Conditions and during regular business hours. A Party may conduct additional audits, at its expense, upon the other Party's consent, which consent shall not be unreasonably withheld.
- 10.14 Except as expressly set forth in this Agreement, nothing contained in this Section 10 shall create any liability for damages, losses, claims, costs, injuries, expenses or other liabilities whatsoever on the part of either Party.
- 10.15 MPB will apply for all traffic bearing the 500, 900, toll free service access code (e.g. 800/888/877) (to the extent provided by an IXC) or any other non-geographic NPA which may be designated for such traffic in the future.
- 10.16 In the event Bandwidth determines to offer Telephone Exchange Services in a LATA in which Verizon operates an access Tandem Switch, Verizon shall permit and enable Bandwidth to subtenant the Verizon access Tandem Switch(es) designated for the Verizon End Offices in the area where there are located Bandwidth Routing Point(s) associated with the NPA NXX(s) to/from which the Switched Exchange Access Services are homed.
- 10.17 Except as otherwise mutually agreed by the Parties, the MPB billing percentages for each Routing Point/Verizon Serving Interconnection Wire Center combination shall be calculated according to the following formula, unless as mutually agreed to by the Parties:

$$a / (a + b) = \text{Bandwidth Billing Percentage}$$

and

$$b / (a + b) = \text{Verizon Billing Percentage}$$

where:

a = the airline mileage between Bandwidth Routing Point and the actual point of interconnection for the MPB arrangement; and

b = the airline mileage between the Verizon Serving Interconnection Wire Center and the actual point of interconnection for the MPB arrangement.

- 10.18 Bandwidth shall inform Verizon of each LATA in which it intends to offer Telephone Exchange Services and its calculation of the billing percentages which should apply for such arrangement. Within ten (10) Business Days of Bandwidth's delivery of notice to Verizon, Verizon and Bandwidth shall confirm the Routing Point/Verizon Serving Interconnection Wire Center combination and billing percentages.

11. Toll Free Service Access Code (e.g., 800/888/877) Traffic

The following terms shall apply when either Party delivers toll free service access code (e.g., 800/877/888)("8YY") calls to the other Party. For the purposes of this Section 11, the terms "translated" and "untranslated" refers to those toll free service access code calls that have been queried ("translated") or have not been queried ("untranslated") to an 8YY database. Except as otherwise agreed to by the Parties, all Bandwidth originating "untranslated" 8YY traffic will be routed over a separate One-Way miscellaneous Trunk group.

- 11.1 When Bandwidth delivers translated 8YY calls to Verizon to be completed by

11.1.1 an IXC:

- 11.1.1.1 Bandwidth will provide an appropriate EMI record to Verizon;
- 11.1.1.2 Bandwidth will bill the IXC the Bandwidth's applicable Switched Exchange Access Tariff charges and the Bandwidth's applicable Tariff query charges; and
- 11.1.1.3 Verizon will bill the IXC Verizon's applicable Switched Exchange Access Tariff charges.

11.1.2 Verizon:

- 11.1.2.1 Bandwidth will provide an appropriate EMI record to Verizon; and
- 11.1.2.2 Bandwidth will bill Verizon the Bandwidth's Switched Exchange Access Tariff charges and the Bandwidth's applicable Tariff query charge.

11.1.3 a toll free service access code service provider in that LATA:

- 11.1.3.1 Bandwidth will provide an appropriate EMI record to Verizon and the toll free service access code service provider;
- 11.1.3.2 Bandwidth will bill the toll free service access code service provider the Bandwidth's applicable Switched Exchange Access Tariff charges and the Bandwidth's applicable Tariff query charges; and
- 11.1.3.3 Verizon will bill the toll free service access code service provider Verizon's applicable Switched Exchange Access Tariff charges.

- 11.2 When Verizon performs the query and delivers translated 8YY calls, originated by Verizon's Customer or another LEC's Customer to Bandwidth to be completed by
 - 11.2.1 Bandwidth:
 - 11.2.1.1 Verizon will provide an appropriate EMI record to Bandwidth; and
 - 11.2.1.2 Verizon will bill Bandwidth Verizon's applicable Switched Exchange Access Tariff charges and Verizon's applicable Tariff query charges.
 - 11.2.2 a toll free service access code service provider in that LATA:
 - 11.2.2.1 Verizon will provide an appropriate EMI record to Bandwidth and the toll free service access code service provider;
 - 11.2.2.2 Verizon will bill the toll free service access code service provider Verizon's applicable Switched Exchange Access Tariff charges and Verizon's applicable Tariff query charges; and
 - 11.2.2.3 Bandwidth will bill the toll free service access code service provider the Bandwidth's applicable Switched Exchange Access Tariff charges.
- 11.3 When Bandwidth: delivers untranslated 8YY calls to Verizon to be completed by
 - 11.3.1 an IXC:
 - 11.3.1.1 Verizon will query the call and route the call to the appropriate IXC;
 - 11.3.1.2 Verizon will provide an appropriate EMI record to Bandwidth;
 - 11.3.1.3 Verizon will bill the IXC Verizon's applicable Switched Exchange Access Tariff charges and Verizon's applicable Tariff query charges; and
 - 11.3.1.4 Bandwidth will bill the IXC Bandwidth's applicable Switched Exchange Access Tariff charges.
 - 11.3.2 Verizon:
 - 11.3.2.1 Verizon will query the call and complete the call;
 - 11.3.2.2 Verizon will provide an appropriate EMI record to Bandwidth;
 - 11.3.2.3 Bandwidth will bill Verizon the Bandwidth's applicable Switched Exchange Access Tariff charges.
 - 11.3.3 a toll free service access code service provider in that LATA:
 - 11.3.3.1 Verizon will query the call and route the call to the appropriate toll free service access code service provider;

- 11.3.3.2 Verizon will provide an appropriate EMI record to Bandwidth and the toll free service access code service provider;
 - 11.3.3.3 Verizon will bill the toll free service access code service provider Verizon's applicable Switched Exchange Access Tariff and Verizon's applicable Tariff query charges; and
 - 11.3.3.4 Bandwidth will bill the toll free service access code service provider the Bandwidth's applicable Switched Exchange Access Tariff charges.
- 11.4 Verizon will not direct untranslated toll free service access code calls to Bandwidth.

12. Tandem Transit Traffic

- 12.1 As used in this Section, Tandem Transit Traffic is Telephone Exchange Service traffic that originates on Bandwidth's network, and is transported through Verizon's Tandem to the subtending End Office or its equivalent of another carrier (CLEC, ILEC other than Verizon, Commercial Mobile Radio Service (CMRS) carrier, or other LEC ("Other Carrier"). Neither the originating nor terminating customer is a Customer of Verizon. Subtending End Offices shall be determined in accordance with and as identified in the Local Exchange Routing Guide (LERG). For the avoidance of any doubt, under no circumstances shall Verizon be required to transit traffic through a Verizon Tandem to a Central Office that the LERG does not identify as subtending that particular Verizon Tandem. Switched Exchange Access Service traffic is not Tandem Transit Traffic.
- 12.2 Tandem Transit Traffic Service provides Bandwidth with the transport of Tandem Transit Traffic as provided below.
- 12.3 Tandem Transit Traffic may be routed over the Interconnection Trunks described in Sections 2 through 6 of this Attachment. Bandwidth shall deliver each Tandem Transit Traffic call to Verizon's Tandem with CCS and the appropriate Transactional Capabilities Application Part ("TCAP") message to facilitate full interoperability of CLASS Features and billing functions.
- 12.4 Bandwidth may use Tandem Transit Traffic Service only for traffic that originates on Bandwidth's network and only to send traffic to an Other Carrier with whom Bandwidth has a reciprocal traffic exchange arrangement (either via written agreement or mutual tariffs) that provides for the Other Carrier, to terminate or complete traffic originated by Bandwidth and to bill Bandwidth, and not to bill Verizon, for such traffic. Bandwidth agrees not to use Verizon's Tandem Transit Traffic Service to send traffic to an Other Carrier with whom Bandwidth does not have such a reciprocal traffic exchange arrangement or to send traffic that does not originate on Bandwidth's network.
- 12.5 Bandwidth shall pay Verizon for Tandem Transit Traffic Service at the rates specified in the Pricing Attachment. Verizon will not be liable for compensation to any Other Carrier for any traffic that is transported through Verizon's Tandem and Verizon reserves the right to assess to Bandwidth any additional charges or costs any Other Carrier imposes or levies on Verizon for the delivery or termination of such traffic, including any Switched Exchange Access Service charges. If Verizon is billed by any Other Carrier for any traffic originated by Bandwidth, Verizon may provide notice to Bandwidth of such billing. Upon receipt of such notice, Bandwidth shall immediately stop using Verizon's Tandem

Transit Traffic Service to send any traffic to such Other Carrier until it has provided to Verizon certification that the Other Carrier has removed such billed charges from its bill to Verizon and that the Other Carrier will not bill Verizon for any traffic originated by Bandwidth. Such certification must be signed by an authorized officer or agent of the Other Carrier and must be in a form acceptable to Verizon.

- 12.6 If Bandwidth uses Tandem Transit Traffic Service for traffic volumes that exceed the Centum Call Seconds (Hundred Call Seconds) busy hour equivalent of 200,000 combined minutes of use per month (a DS1 equivalent) to the subtending End Office of a particular Other Carrier for any month (the "Threshold Level"). Bandwidth shall use good faith efforts to establish direct interconnection with such Other Carrier and reduce such traffic volumes below the Threshold Level. If Verizon believes that Bandwidth has not exercised good faith efforts promptly to obtain such direct interconnection, either Party may use the Dispute Resolution processes of this Agreement.
- 12.7 If Bandwidth fails to comply with Section 12 of this Attachment, such failure shall be a material breach of a material provision of this Agreement and Verizon may exercise any and all remedies under this Agreement and Applicable Law for such breach.
- 12.8 If or when a third party carrier plans to subtend a Bandwidth switch, then Bandwidth shall provide written notice to Verizon at least ninety (90) days before such subtending service arrangement becomes effective so that Verizon may negotiate and establish direct interconnection with such third party carrier. Upon written request from Verizon, Bandwidth shall offer to Verizon a service arrangement equivalent to or the same as Tandem Transit Traffic Service provided by Verizon to Bandwidth as defined in this Section such that Verizon may terminate calls to a Central Office or its equivalent of a CLEC, ILEC other than Verizon, CMRS carrier, or other LEC, that subtends a Bandwidth Central Office or its equivalent ("Reciprocal Tandem Transit Service"). Bandwidth shall offer such Reciprocal Transit Service arrangements under terms and conditions of an amendment to this Agreement or a separate agreement no less favorable than those provided in this Section.
- 12.9 Neither Party shall take any actions to prevent the other Party from entering into a direct and reciprocal traffic exchange arrangement with any carrier to which it originates, or from which it terminates, traffic.

13. Number Resources, Rate Center Areas and Routing Points

- 13.1 Nothing in this Agreement shall be construed to limit or otherwise adversely affect in any manner either Party's right to employ or to request and be assigned any Central Office Codes ("NXX") pursuant to the Central Office Code Assignment Guidelines and any relevant FCC or Commission orders, as may be amended from time to time, or to establish, by Tariff or otherwise, Rate Center Areas and Routing Points corresponding to such NXX codes.
- 13.2 It shall be the responsibility of each Party to program and update its own switches and network systems pursuant to information provided on ASRs as well as the LERG in order to recognize and route traffic to the other Party's assigned NXX codes. Except as expressly set forth in this Agreement, neither Party shall impose any fees or charges whatsoever on the other Party for such activities.
- 13.3 Unless otherwise required by Commission order, the Rate Center Areas will be the same for each Party. During the term of this Agreement, Bandwidth shall

adopt the Rate Center Area and Rate Center Points that the Commission has approved for Verizon within the LATA and Tandem serving area. Bandwidth shall assign whole NPA-NXX codes to each Rate Center Area unless otherwise ordered by the FCC, the Commission or another governmental entity of appropriate jurisdiction, or the LEC industry adopts alternative methods of utilizing NXXs.

- 13.4 Bandwidth will also designate a Routing Point for each assigned NXX code. Bandwidth shall designate one location for each Rate Center Area in which the Bandwidth has established NXX code(s) as the Routing Point for the NPA-NXXs associated with that Rate Center Area, and such Routing Point shall be within the same LATA as the Rate Center Area but not necessarily within the Rate Center Area itself. Unless specified otherwise, calls to subsequent NXXs of Bandwidth will be routed in the same manner as calls to Bandwidth's initial NXXs.
- 13.5 Notwithstanding anything to the contrary contained herein, nothing in this Agreement is intended, and nothing in this Agreement shall be construed, to in any way constrain Bandwidth's choices regarding the size of the local calling area(s) that Bandwidth may establish for its Customers, which local calling areas may be larger than, smaller than, or identical to Verizon's local calling areas.

14. Joint Network Implementation and Grooming Process; Forecasting

14.1 Joint Network Implementation and Grooming Process.

Upon request of either Party, the Parties shall jointly develop an implementation and grooming process (the "Joint Grooming Process" or "Joint Process") which may define and detail, inter alia:

- 14.1.1 standards to ensure that Interconnection Trunks experience a grade of service, availability and quality which is comparable to that achieved on interoffice trunks within Verizon's network and in accord with all appropriate relevant industry-accepted quality, reliability and availability standards. Except as otherwise stated in this Agreement, trunks provided by either Party for Interconnection services will be engineered using a design-blocking objective of B.01.
- 14.1.2 the respective duties and responsibilities of the Parties with respect to the administration and maintenance of the trunk groups, including, but not limited to, standards and procedures for notification and discoveries of trunk disconnects;
- 14.1.3 disaster recovery provision escalations;
- 14.1.4 additional technically feasible Point(s) of Interconnection on Verizon's network in a LATA as provided in Section 2 of this Attachment; and
- 14.1.5 such other matters as the Parties may agree, including, e.g., End Office to End Office high usage trunks as good engineering practices may dictate.

14.2 Trunk Forecasting Requirements.

- 14.2.1 Initial Trunk Forecast Requirements. At least ninety (90) days before initiating interconnection in a LATA, Bandwidth shall provide Verizon a two (2)-year traffic forecast that complies with the Verizon Interconnection Trunking Forecast Guide, as revised from time to time.

This initial traffic forecast will provide the amount of traffic to be delivered to and from Verizon over each of the Interconnection Trunk groups in the LATA over the next eight (8) quarters.

- 14.2.2 Ongoing Trunk Forecast Requirements. Where the Parties have already established interconnection in a LATA, Bandwidth shall provide a new or revised traffic forecast that complies with the Verizon Interconnection Trunking Forecast Guide when Bandwidth develops plans or becomes aware of information that will materially affect the Parties' interconnection in that LATA. Instances that require a new or revised forecast include, but are not limited to: (a) Bandwidth plans to deploy a new switch; (b) Bandwidth plans to implement a new POI or network architecture; (c) Bandwidth plans to rearrange its network; (d) Bandwidth plans to convert a One-Way Interconnection Trunk group to a Two-Way Interconnection Trunk group; (e) Bandwidth plans to convert a Two-Way Interconnection Trunk group to a One-Way Interconnection Trunk group; or (f) Bandwidth expects a significant change in interconnection traffic volume. In addition, upon request by either Party, the Parties shall meet to: (i) review traffic and usage data on End Office and Tandem Interconnection Trunk groups and (ii) determine whether the Parties should establish new Interconnection Trunk groups, augment existing Interconnection Trunk groups, or disconnect existing Interconnection Trunks.
- 14.2.3 Use of Trunk Forecasts. Trunk forecasts provided pursuant to this Agreement must be prepared in good faith but are not otherwise binding on Bandwidth or Verizon.

15. Number Portability - Section 251(B)(2)

15.1 Scope.

The Parties shall provide Number Portability (NP) in accordance with rules and regulations as from time to time prescribed by the FCC.

15.2 Procedures for Providing LNP ("Local Number Portability").

The Parties will follow the LNP provisioning process recommended by the North American Numbering Council (NANC) and the Industry Numbering Council (INC), and adopted by the FCC. In addition, the Parties agree to follow the LNP ordering procedures established at the OBF. The Parties shall provide LNP on a reciprocal basis.

- 15.2.1 A Customer of one Party ("Party A") elects to become a Customer of the other Party ("Party B"). The Customer elects to utilize the original telephone number(s) corresponding to the Telephone Exchange Service(s) it previously received from Party A, in conjunction with the Telephone Exchange Service(s) it will now receive from Party B. After Party B has received authorization from the Customer in accordance with Applicable Law and sends an LSR to Party A, Parties A and B will work together to port the Customer's telephone number(s) from Party A's network to Party B's network.
- 15.2.2 When a telephone number is ported out of Party A's network, Party A will remove any non-proprietary line based calling card(s) associated with the ported number(s) from its Line Information Database (LIDB).

Reactivation of the line-based calling card in another LIDB, if desired, is the responsibility of Party B or Party B's Customer.

- 15.2.3 When a Customer of Party A ports their telephone numbers to Party B and the Customer has previously secured a reservation of line numbers from Party A for possible activation at a future point, these reserved but inactive numbers may be ported along with the active numbers to be ported provided the numbers have been reserved for the Customer. Party B may request that Party A port all reserved numbers assigned to the Customer or that Party A port only those numbers listed by Party B. As long as Party B maintains reserved but inactive numbers ported for the Customer, Party A shall not reassign those numbers. Party B shall not reassign the reserved numbers to another Customer.
 - 15.2.4 When a Customer of Party A ports their telephone numbers to Party B, in the process of porting the Customer's telephone numbers, Party A shall implement the ten-digit trigger feature where it is available. When Party A receives the porting request, the unconditional trigger shall be applied to the Customer's line before the due date of the porting activity. When the ten-digit unconditional trigger is not available, Party A and Party B must coordinate the disconnect activity.
 - 15.2.5 The Parties shall furnish each other with the Jurisdiction Information Parameter (JIP) in the Initial Address Message (IAM), according to industry standards.
 - 15.2.6 Where LNP is commercially available, the NXXs in the office shall be defined as portable, except as noted in 15.2.7, and translations will be changed in the Parties' switches to open those NXXs for database queries in all applicable LNP capable offices within the LATA of the given switch(es). On a prospective basis, all newly deployed switches will be equipped with LNP capability and so noted in the LERG.
 - 15.2.7 All NXXs assigned to LNP capable switches are to be designated as portable unless a NXX(s) has otherwise been designated as non-portable. Non-portable NXXs include NXX codes assigned to paging services; NXX codes assigned for internal testing and official use, and any other NXX codes required to be designated as non-portable by the rules and regulations of the FCC. NXX codes assigned to mass calling on a choked network may not be ported using LNP technology but are portable using methods established by the NANC and adopted by the FCC. On a prospective basis, newly assigned codes in switches capable of porting shall become commercially available for porting with the effective date in the network.
 - 15.2.8 Both Parties' use of LNP shall meet the performance criteria specified by the FCC. Both Parties will act as the default carrier for the other Party in the event that either Party is unable to perform the routing necessary for LNP.
- 15.3 Procedures for Providing NP Through Full NXX Code Migration.
- Where a Party has activated an entire NXX for a single Customer, or activated at least eighty percent (80%) of an NXX for a single Customer, with the remaining numbers in that NXX either reserved for future use by that Customer or otherwise unused, if such Customer chooses to receive Telephone Exchange Service from

the other Party, the first Party shall cooperate with the second Party to have the entire NXX reassigned in the LERG (and associated industry databases, routing tables, etc.) to an End Office operated by the second Party. Such transfer will be accomplished with appropriate coordination between the Parties and subject to appropriate industry lead times for movements of NXXs from one switch to another. Neither Party shall charge the other in connection with this coordinated transfer.

15.4 Procedures for LNP Request.

The Parties shall provide for the requesting of End Office LNP capability on a reciprocal basis through a written request. The Parties acknowledge that Verizon has deployed LNP throughout its network in compliance with FCC 96-286 and other applicable FCC Regulations.

15.4.1 If Party B desires to have LNP capability deployed in an End Office of Party A, which is not currently capable, Party B shall issue a LNP request to Party A. Party A will respond to the Party B, within ten (10) days of receipt of the request, with a date for which LNP will be available in the requested End Office. Party A shall proceed to provide for LNP in compliance with the procedures and timelines set forth in FCC 96-286, Paragraph 80, and FCC 97-74, Paragraphs 65 through 67.

15.4.2 The Parties acknowledge that each can determine the LNP-capable End Offices of the other through the Local Exchange Routing Guide (LERG). In addition, the Parties shall make information available upon request showing their respective LNP-capable End Offices, as set forth in this Section 15.4.

15.5 Bandwidth shall submit orders to port numbers electronically using an LSR via the Verizon web Graphical User Interface ("GUI") or Electronic Data Interface ("EDI") pursuant to the instructions, business rules and guidelines set forth on the Verizon Partner Solutions website (formerly referred to as the Verizon wholesale website).

16. Good Faith Performance

If and, to the extent that, Verizon, prior to the Effective Date of this Agreement, has not provided in the State of South Carolina a Service offered under this Attachment, Verizon reserves the right to negotiate in good faith with Bandwidth reasonable terms and conditions (including, without limitation, rates and implementation timeframes) for such Service; and, if the Parties cannot agree to such terms and conditions (including, without limitation, rates and implementation timeframes), either Party may utilize the Agreement's dispute resolution procedures.

TRAFFIC EXCHANGE ATTACHMENT

1. General

Where both Parties subtend the same Tandem Switch operated by a third party (such third party hereinafter referred to as the "Third Party Tandem Provider" and such switch hereinafter referred to as the "Third Party Tandem Switch"), then, subject to the terms and conditions of this Attachment, for those NPA/NXX codes assigned by each Party to Rate Center Areas served by that Third Party Tandem Switch, the Parties may reciprocally exchange Reciprocal Compensation Traffic, Measured Internet Traffic, intraLATA Toll Traffic, and translated IntraLATA toll free service access code traffic, originated by their respective Customers, through that Third Party Tandem Switch. For the avoidance of any doubt, nothing in this Attachment shall preclude the Parties from interconnecting their networks in accordance with the Interconnection Attachment, which Interconnection Attachment must be a part of the Agreement.

2. Arrangements With Third Party Tandem Provider

2.1 The Parties acknowledge and agree that, in order to exchange Reciprocal Compensation Traffic, Measured Internet Traffic, IntraLATA Toll Traffic, and translated IntraLATA toll free service access code traffic under this Attachment, each Party must have established and must maintain its own interconnection and compensation arrangements with the Third Party Tandem Provider for the routing and exchange of the foregoing traffic between the Parties under this Attachment (e.g., arrangements that permit the subject traffic to be exchanged through the Third Party Tandem Provider). In addition, the Parties must also fulfill each of the other requirements of this Attachment.

2.1.1 If such arrangements between a Party and the Third Party Tandem Provider are terminated (e.g., where a Third Party Tandem Provider does not permit a Party to exchange the foregoing traffic using the Third Party Tandem Switch), that Party shall promptly give written notice thereof to the other Party. Absent the existence of such arrangements with the Third Party Tandem Provider, each Party shall have the right, on written notice to the other Party, to discontinue exchanging the foregoing traffic with the other Party (i.e., receiving such traffic from or, sending such traffic to, the other Party) under this Attachment.

2.1.2 Notwithstanding any other provision of this Agreement, on one hundred twenty (120) days written notice, a Party may discontinue exchanging the foregoing traffic with the other Party under this Attachment.

2.2 Forecasting Requirements.

2.2.1 Within ninety (90) days of executing the Agreement, Bandwidth shall provide Verizon a two (2)-year traffic forecast. This initial forecast will provide the amount of traffic to be delivered to and from Verizon pursuant to this Attachment, over the next eight (8) quarters.

2.2.2 Ongoing forecast requirements. Where the Parties are already exchanging traffic through a Third Party Tandem Switch in a LATA, Bandwidth shall provide a new or revised traffic forecast when Bandwidth develops plans or becomes aware of information that will

materially affect the Parties' exchange of traffic through such Third Party Tandem Switch in that LATA. Instances that require a new or revised forecast include, but are not limited to: (i) Bandwidth plans to deploy a new switch; (ii) Bandwidth plans to implement interconnection in accordance with the Interconnection Attachment or a new network architecture; (iii) Bandwidth plans to rearrange its network; or (iv) Bandwidth expects a significant change in traffic volume.

2.2.3 Use of Forecasts. Forecasts provided pursuant to this Agreement are not binding on Bandwidth or Verizon.

- 2.3 Prior to exchanging traffic through a Third Party Tandem Switch, Bandwidth shall meet with Verizon to conduct a joint planning meeting ("Third Party Tandem Provider Joint Planning Meeting"). At that Third Party Tandem Provider Joint Planning Meeting, each Party shall, among other things, provide to the other Party originating Centium Call Second (Hundred Call Second) information.
- 2.4 If and, when, the volume of traffic exchanged between a Verizon End Office and Bandwidth switch through a Third Party Tandem Switch exceeds (a) the Centium Call Second (Hundred Call Second) busy hour equivalent of one (1) DS-1 at any time; (b) 200,000 combined minutes of use for any month; (c) 600 busy hour Centium Call Seconds (BHCCS) of use for a single month, upon the written request of either Party, the Parties shall meet promptly and consider whether to interconnect their respective networks pursuant to the Interconnection Attachment. In the event the Parties so interconnect their respective networks, the Parties shall discontinue exchanging any and all traffic through the Third Party Tandem Switch, unless the Parties otherwise agree to continue exchanging traffic but, on an overflow basis, through the Third Party Tandem Switch.
- 2.5 Nothing in this Attachment shall be read to require either Party to establish and/or maintain a subtending arrangement with a Third Party Tandem Provider.

3. Initiating Traffic Exchange Under This Attachment

- 3.1 If Bandwidth determines to offer Telephone Exchange Services and wishes to exchange traffic with Verizon through a Third Party Tandem Switch in any LATA in which Verizon also offers Telephone Exchange Services, Bandwidth shall provide written notice to Verizon of its request to exchange traffic through a Third Party Tandem Switch in such LATA pursuant to this Attachment.
- 3.2 The notice provided in Section 3.1 of this Attachment shall include (a) Bandwidth's proposed traffic exchange activation date; (b) a forecast of Bandwidth's traffic volumes conforming to Section 2 of this Attachment; and (c) such other information as Verizon shall reasonably request in order to facilitate traffic exchange under this Attachment.
- 3.3 The traffic exchange activation date in the new LATA shall be mutually agreed to by the Parties after receipt by Verizon of all necessary information as indicated in Section 3.2 of this Attachment.

4. Traffic Measurement and Billing

- 4.1 The Parties agree that they will make commercially reasonable efforts to obtain and utilize accurate and complete recordings, of any traffic exchanged between them under this Attachment, for use in billing.

- 4.2 At such time as a receiving Party has the capability, on an automated basis, to use CPN to classify traffic from the other Party, exchanged under this Attachment, by traffic type (i.e., Reciprocal Compensation Traffic, Measured Internet Traffic, intraLATA Toll Traffic, and IntraLATA toll free service access code traffic), such receiving Party shall bill the originating Party the rate applicable to each relevant minute of traffic for which CPN is received. If the receiving Party lacks the capability, on an automated basis, to use CPN information on an automated basis to classify traffic received from the other Party by traffic type, the originating Party will supply Traffic Factor 1 and Traffic Factor 2. In any case, the Traffic Factors shall be supplied in writing by the originating Party within thirty (30) days of the Effective Date and shall be updated in writing by the originating Party quarterly. Measurement of billing minutes for purposes of determining terminating compensation shall be in conversation seconds (the time in seconds that a Party's equipment is used for a completed call, measured from the receipt of answer supervision to the receipt of disconnect supervision). Measurement of billing minutes for originating toll free service access code (e.g., 800/888/877) calls shall be in accordance with applicable Tariffs. Determination as to whether traffic is Reciprocal Compensation Traffic or Measured Internet Traffic shall be made in accordance with Paragraphs 8 and 79, and other applicable provisions, of the FCC Internet Order (including, but not limited to, in accordance with the rebuttable presumption established by the FCC Internet Order that traffic delivered to a carrier that exceeds a 3:1 ratio of terminating to originating traffic is Measured Internet Traffic, and in accordance with the process established by the FCC Internet Order for rebutting such presumption before the Commission).
- 4.3 Each Party reserves the right to audit all traffic exchanged under this Attachment, up to a maximum of two audits per calendar year, to ensure that rates are being applied appropriately; provided, however, that either Party shall have the right to conduct additional audit(s) if the preceding audit disclosed material errors or discrepancies. Each Party agrees to provide the necessary traffic data in conjunction with any such audit in a timely manner.
- 4.4 Nothing in this Agreement shall be construed to limit either Party's ability to designate the areas within which that Party's Customers may make calls which that Party rates as "local" in its Customer Tariffs.
- 4.5 If and, to the extent that, a Bandwidth Customer receives V/FX Traffic exchanged under this Attachment, Bandwidth shall promptly provide notice thereof to Verizon (such notice to include, without limitation, the specific telephone number(s) that the Customer uses for V/FX Traffic, as well as the LATA in which the Customer's station is actually physically located) and shall not bill Verizon Reciprocal Compensation, intercarrier compensation or any other charges for calls placed by Verizon's Customers to such Bandwidth Customers.

5. Reciprocal Compensation Arrangements Pursuant to Section 251(b)(5) of the Act

5.1 Reciprocal Compensation.

The Party originating Reciprocal Compensation Traffic shall compensate the terminating Party for the transport and termination of such traffic to its Customer in accordance with Section 251(b)(5) of the Act at the equal and symmetrical rates stated in the Pricing Attachment; it being understood and agreed that because the Third Party Tandem Provider is providing the tandem functionally to both Parties, Verizon shall charge (and Bandwidth shall pay Verizon) the End Office Reciprocal Compensation rate set forth in the Pricing Attachment for Reciprocal Compensation Traffic Verizon receives from Bandwidth and

Bandwidth shall charge (and Verizon shall pay Bandwidth) the End Office Reciprocal Compensation rate set forth in the Pricing Attachment for Reciprocal Compensation Traffic Bandwidth receives from Verizon. No additional charges shall be assessed by the terminating Party for the transport and termination of such traffic received from the other Party; provided, however, for the avoidance of any doubt, neither Party may assess upon, or pass through to, the other Party any charges billed by (or on behalf of) the Third Party Tandem Provider. The designation of traffic as Reciprocal Compensation Traffic for purposes of Reciprocal Compensation shall be based on the actual originating and terminating points of the complete end-to-end communication.

5.2 Traffic Not Subject to Reciprocal Compensation.

- 5.2.1 Reciprocal Compensation shall not apply to interstate or intrastate Exchange Access (including, without limitation, Virtual Foreign Exchange Traffic (i.e., V/FX Traffic)), Information Access, or exchange services for Exchange Access or Information Access.
- 5.2.2 Reciprocal Compensation shall not apply to Internet Traffic.
- 5.2.3 Reciprocal Compensation shall not apply to Toll Traffic, including, but not limited to, calls originated on a 1+ presubscription basis, or on a casual dialed (10XXX/101XXXX) basis.
- 5.2.4 Reciprocal Compensation shall not apply to Optional Extended Local Calling Area Traffic.
- 5.2.5 Reciprocal Compensation shall not apply to special access, private line, or any other traffic that is not switched by the terminating Party.
- 5.2.6 Reciprocal Compensation shall not apply to Tandem Transit Traffic.
- 5.2.7 Reciprocal Compensation shall not apply to Voice Information Service Traffic (as defined in Section 5 of the Additional Services Attachment).
- 5.2.8 Reciprocal Compensation shall not apply to traffic that is not subject to Reciprocal Compensation under Section 251(b)(5) of the Act.
- 5.2.9 Reciprocal Compensation shall not apply to Virtual Foreign Exchange Traffic (i.e., V/FX Traffic). As used in this Agreement, "Virtual Foreign Exchange Traffic" or "V/FX Traffic" is defined as calls in which a Bandwidth Customer is assigned a telephone number with an NXX Code (as set forth in the LERG) associated with an exchange that is different than the exchange (as set forth in the LERG) associated with the actual physical location of such Customer's station. For the avoidance of any doubt, Bandwidth shall pay Verizon's originating access charges for all V/FX Traffic originated by a Verizon Customer, and Bandwidth shall pay Verizon's terminating access charges for all V/FX Traffic originated by a Bandwidth Customer.

- 5.3 The Reciprocal Compensation rates (including, but not limited to, the Reciprocal Compensation per minute of use charges) billed by Bandwidth to Verizon shall not exceed the Reciprocal Compensation rates (including, but not limited to, Reciprocal Compensation per minute of use charges) billed by Verizon to Bandwidth.

6. Other Types of Traffic

- 6.1 Notwithstanding any other provision of this Agreement or otherwise: (a) the Parties' rights and obligations with respect to any intercarrier compensation that may be due in connection with their exchange of Internet Traffic shall be governed by the terms of the FCC Internet Order and other applicable FCC orders and FCC Regulations; and, (b) a Party shall not be obligated to pay any intercarrier compensation for Internet Traffic that is in excess of the intercarrier compensation for Internet Traffic that such Party is required to pay under the FCC Internet Order and other applicable FCC orders and FCC Regulations.
- 6.2 Subject to Section 6.1 of this Attachment, IntraLATA Toll Traffic exchanged under this Attachment shall be governed by the applicable provisions of this Agreement and applicable Tariffs.
- 6.3 For any traffic originating with a third party carrier and delivered by Bandwidth to Verizon, Bandwidth shall pay Verizon the same amount that such third party carrier would have been obligated to pay Verizon for termination of that traffic at the location the traffic is delivered to Verizon by Bandwidth.
- 6.4 Notwithstanding any provision of this Agreement or otherwise, no Interexchange Carrier (IXC) traffic may be exchanged under this Attachment.
- 6.5 Any traffic not specifically addressed in this Attachment shall be treated as required by the applicable Tariff of the Party transporting and/or terminating the traffic.

7. Toll Free Service Access Code (e.g., 800/888/877) Traffic

The following terms shall apply when either Party delivers IntraLATA toll free service access code (e.g., 800/877/888) ("8YY") calls to the other Party under this Attachment. For the purposes of this Section 7, the terms "translated" refer to those toll free service access code calls that have been queried ("translated") to an 8YY database.

- 7.1 When Bandwidth delivers translated IntraLATA 8YY calls to Verizon for completion:
 - 7.1.1 by Verizon:
 - 7.1.1.1 Bandwidth will provide an appropriate EMI record to Verizon; and
 - 7.1.1.2 Bandwidth will bill Verizon the Bandwidth's Switched Exchange Access Tariff charges and the Bandwidth's applicable Tariff query charge.
 - 7.1.2 by a toll free service access code service provider in that LATA:
 - 7.1.2.1 Bandwidth will provide an appropriate EMI record to Verizon and the toll free service access code service provider; and
 - 7.1.2.2 Bandwidth will bill the toll free service access code service provider the Bandwidth's applicable Switched Exchange Access Tariff charges and the Bandwidth's applicable Tariff query charges; and
 - 7.1.2.3 Verizon will bill the toll free service access code service provider Verizon's applicable Switched Exchange Access Tariff charges.

- 7.2 When Verizon performs the query and delivers translated IntraLATA 8YY calls, originated by Verizon's or another LEC's Customer for completion:
- 7.2.1 by Bandwidth:
- 7.2.1.1 Verizon will provide an appropriate EMI record to Bandwidth; and
- 7.2.1.2 Verizon will bill Bandwidth Verizon's applicable Switched Exchange Access Tariff charges and Verizon's applicable Tariff query charges.
- 7.2.2 by a toll free service access code service provider in that LATA:
- 7.2.2.1 Verizon will provide an appropriate EMI record to Bandwidth and the toll free service access code service provider; and
- 7.2.2.2 Verizon will bill the toll free service access code service provider Verizon's applicable Switched Exchange Access Tariff charges and Verizon's applicable Tariff query charges; and
- 7.2.2.3 Bandwidth will bill the toll free service access code service provider the Bandwidth's applicable Switched Exchange Access Tariff charges.
- 7.3 Verizon will not direct untranslated toll free service access code calls to Bandwidth. Bandwidth will not direct untranslated toll free service access code calls to Verizon.

8. Number Resources, Rate Center Areas and Routing Points

- 8.1 Nothing in this Agreement shall be construed to limit or otherwise adversely affect in any manner either Party's right to employ or to request and be assigned any Central Office Codes ("NXX") pursuant to the Central Office Code Assignment Guidelines and any relevant FCC or Commission orders, as may be amended from time to time, or to establish, by Tariff or otherwise, Rate Center Areas and Routing Points corresponding to such NXX codes.
- 8.2 It shall be the responsibility of each Party to program and update its own switches and network systems pursuant to information provided in the LERG in order to recognize and route traffic to the other Party's assigned NXX codes. Except as expressly set forth in this Agreement, neither Party shall impose any fees or charges whatsoever on the other Party for such activities.
- 8.3 Unless otherwise required by Commission order, the Rate Center Areas will be the same for each Party. During the term of this Agreement, Bandwidth shall adopt the Rate Center Area and Rate Center Points that the Commission has approved for Verizon within the LATA and Tandem serving area. Bandwidth shall assign whole NPA-NXX codes to each Rate Center Area unless otherwise ordered by the FCC, the Commission or another governmental entity of appropriate jurisdiction, or the LEC industry adopts alternative methods of utilizing NXXs.
- 8.4 Bandwidth will also designate a Routing Point for each assigned NXX code. Bandwidth shall designate one location for each Rate Center Area in which the Bandwidth has established NXX code(s) as the Routing Point for the NPA-NXXs associated with that Rate Center Area, and such Routing Point shall be within the

same LATA as the Rate Center Area but not necessarily within the Rate Center Area itself. Unless specified otherwise, calls to subsequent NXXs of Bandwidth will be routed in the same manner as calls to Bandwidth's initial NXXs.

- 8.5 Notwithstanding anything to the contrary contained herein, nothing in this Agreement is intended, and nothing in this Agreement shall be construed, to in any way constrain Bandwidth's choices regarding the size of the local calling area(s) that Bandwidth may establish for its Customers, which local calling areas may be larger than, smaller than, or identical to Verizon's local calling areas.

9. Number Portability - Section 251(B)(2)

9.1 Scope.

The Parties shall provide Number Portability (NP) in accordance with rules and regulations as from time to time prescribed by the FCC.

9.2 Procedures for Providing LNP ("Local Number Portability").

The Parties will follow the LNP provisioning process recommended by the North American Numbering Council (NANC) and the Industry Numbering Council (INC), and adopted by the FCC. In addition, the Parties agree to follow the LNP ordering procedures established at the OBF. The Parties shall provide LNP on a reciprocal basis.

- 9.2.1 A Customer of one Party ("Party A") elects to become a Customer of the other Party ("Party B"). The Customer elects to utilize the original telephone number(s) corresponding to the Telephone Exchange Service(s) it previously received from Party A, in conjunction with the Telephone Exchange Service(s) it will now receive from Party B. After Party B has received authorization from the Customer in accordance with Applicable Law and sends an LSR to Party A, Parties A and B will work together to port the Customer's telephone number(s) from Party A's network to Party B's network.
- 9.2.2 When a telephone number is ported out of Party A's network, Party A will remove any non-proprietary line based calling card(s) associated with the ported number(s) from its Line Information Database (LIDB). Reactivation of the line-based calling card in another LIDB, if desired, is the responsibility of Party B or Party B's Customer.
- 9.2.3 When a Customer of Party A ports their telephone numbers to Party B and the Customer has previously secured a reservation of line numbers from Party A for possible activation at a future point, these reserved but inactive numbers may be ported along with the active numbers to be ported provided the numbers have been reserved for the Customer. Party B may request that Party A port all reserved numbers assigned to the Customer or that Party A port only those numbers listed by Party B. As long as Party B maintains reserved but inactive numbers ported for the Customer, Party A shall not reassign those numbers. Party B shall not reassign the reserved numbers to another Customer.
- 9.2.4 When a Customer of Party A ports their telephone numbers to Party B, in the process of porting the Customer's telephone numbers, Party A shall implement the ten-digit trigger feature where it is available. When Party A receives the porting request, the unconditional trigger shall be

applied to the Customer's line before the due date of the porting activity. When the ten-digit unconditional trigger is not available, Party A and Party B must coordinate the disconnect activity.

- 9.2.5 The Parties shall furnish each other with the Jurisdiction Information Parameter (JIP) in the Initial Address Message (IAM).
- 9.2.6 Where LNP is commercially available, the NXXs in the office shall be defined as portable, except as noted in Section 9.2.7, and translations will be changed in the Parties' switches to open those NXXs for database queries in all applicable LNP capable offices within the LATA of the given switch(es). On a prospective basis, all newly deployed switches will be equipped with LNP capability and so noted in the LERG.
- 9.2.7 All NXXs assigned to LNP capable switches are to be designated as portable unless a NXX(s) has otherwise been designated as non-portable. Non-portable NXXs include NXX codes assigned to paging services; NXX codes assigned for internal testing and official use and any other NXX codes required to be designated as non-portable by the rules and regulations of the FCC. NXX codes assigned to mass calling on a choked network may not be ported using LNP technology but are portable using methods established by the NANC and adopted by the FCC. On a prospective basis, newly assigned codes in switches capable of porting shall become commercially available for porting with the effective date in the network.
- 9.2.8 Both Parties' use of LNP shall meet the performance criteria specified by the FCC. Both Parties will act as the default carrier for the other Party in the event that either Party is unable to perform the routing necessary for LNP.

9.3 Procedures for Providing NP Through Full NXX Code Migration.

Where a Party has activated an entire NXX for a single Customer, or activated at least eighty percent (80%) of an NXX for a single Customer, with the remaining numbers in that NXX either reserved for future use by that Customer or otherwise unused, if such Customer chooses to receive Telephone Exchange Service from the other Party, the first Party shall cooperate with the second Party to have the entire NXX reassigned in the LERG (and associated industry databases, routing tables, etc.) to an End Office operated by the second Party. Such transfer will be accomplished with appropriate coordination between the Parties and subject to appropriate industry lead times for movements of NXXs from one switch to another. Neither Party shall charge the other in connection with this coordinated transfer.

9.4 Procedures for LNP Request.

The Parties shall provide for the requesting of End Office LNP capability on a reciprocal basis through a written request. The Parties acknowledge that Verizon has deployed LNP throughout its network in compliance with FCC 96-286 and other applicable FCC Regulations.

- 9.4.1 If Party B desires to have LNP capability deployed in an End Office of Party A, which is not currently capable, Party B shall issue a LNP request to Party A. Party A will respond to the Party B, within ten (10) days of receipt of the request, with a date for which LNP will be

available in the requested End Office. Party A shall proceed to provide for LNP in compliance with the procedures and timelines set forth in FCC 96-286, Paragraph 80, and FCC 97-74, Paragraphs 65 through 67.

9.4.2 The Parties acknowledge that each can determine the LNP-capable End Offices of the other through the Local Exchange Routing Guide (LERG). In addition, the Parties shall make information available upon request showing their respective LNP-capable End Offices, as set forth in this Section 9.4.

9.5 Bandwidth shall submit orders to port numbers electronically using an LSR via the Verizon web Graphical User Interface ("GUI") or Electronic Data Interface ("EDI") pursuant to the instructions, business rules and guidelines set forth on the Verizon Partner Solutions website (formerly referred to as the Verizon wholesale website).

10. Good Faith Performance

If and, to the extent that, Verizon, prior to the Effective Date of this Agreement, has not provided in the State of South Carolina a Service offered under this Attachment, Verizon reserves the right to negotiate in good faith with Bandwidth reasonable terms and conditions (including, without limitation, rates and implementation timeframes) for such Service; and, if the Parties cannot agree to such terms and conditions (including, without limitation, rates and implementation timeframes), either Party may utilize the Agreement's dispute resolution procedures.

RESALE ATTACHMENT

1. General

Verizon shall provide to Bandwidth, in accordance with this Agreement (including, but not limited to, Verizon's applicable Tariffs) and the requirements of Applicable Law, Verizon's Telecommunications Services for resale by Bandwidth; provided, that notwithstanding any other provision of this Agreement, Verizon shall be obligated to provide Telecommunications Services to Bandwidth only to the extent required by Applicable Law and may decline to provide a Telecommunications Service to Bandwidth to the extent that provision of such Telecommunications Service is not required by Applicable Law.

2. Use of Verizon Telecommunications Services

- 2.1 Verizon Telecommunications Services may be purchased by Bandwidth under this Resale Attachment only for the purpose of resale by Bandwidth as a Telecommunications Carrier. Verizon Telecommunications Services to be purchased by Bandwidth for other purposes (including, but not limited to, Bandwidth's own use) must be purchased by Bandwidth pursuant to other applicable Attachments to this Agreement (if any), or separate written agreements, including, but not limited to, applicable Verizon Tariffs.
- 2.2 Bandwidth shall not resell:
 - 2.2.1 Residential service to persons not eligible to subscribe to such service from Verizon (including, but not limited to, business or other nonresidential Customers);
 - 2.2.2 Lifeline, Link Up America, or other means-tested service offerings, to persons not eligible to subscribe to such service offerings from Verizon;
 - 2.2.3 Grandfathered or discontinued service offerings to persons not eligible to subscribe to such service offerings from Verizon; or
 - 2.2.4 Any other Verizon service in violation of a restriction stated in this Agreement (including, but not limited to, a Verizon Tariff) that is not prohibited by Applicable Law.
 - 2.2.5 In addition to any other actions taken by Bandwidth to comply with this Section 2.2, Bandwidth shall take those actions required by Applicable Law to determine the eligibility of Bandwidth Customers to purchase a service, including, but not limited to, obtaining any proof or certification of eligibility to purchase Lifeline, Link Up America, or other means-tested services, required by Applicable Law. Bandwidth shall indemnify Verizon from any Claims resulting from Bandwidth's failure to take such actions required by Applicable Law.
 - 2.2.6 Verizon may perform audits to confirm Bandwidth's conformity to the provisions of this Section 2.2. Such audits may be performed twice per calendar year and shall be performed in accordance with Section 7 of the General Terms and Conditions.

- 2.3 Bandwidth shall be subject to the same limitations that Verizon's Customers are subject to with respect to any Telecommunications Service that Verizon grandfathers or discontinues offering. Without limiting the foregoing, except to the extent that Verizon follows a different practice for Verizon Customers in regard to a grandfathered Telecommunications Service, such grandfathered Telecommunications Service: (a) shall be available only to a Customer that already has such Telecommunications Service; (b) may not be moved to a new service location; and (c) will be furnished only to the extent that facilities continue to be available to provide such Telecommunications Service.
- 2.4 Bandwidth shall not be eligible to participate in any Verizon plan or program under which Verizon Customers may obtain products or services, which are not Verizon Telecommunications Services, in return for trying, agreeing to purchase, purchasing, or using Verizon Telecommunications Services.
- 2.5 In accordance with 47 CFR § 51.617(b), Verizon shall be entitled to all charges for Verizon Exchange Access services used by interexchange carriers to provide service to Bandwidth Customers.

3. Availability of Verizon Telecommunications Services

- 3.1 Verizon will provide a Verizon Telecommunications Service to Bandwidth for resale pursuant to this Attachment where and to the same extent, but only where and to the same extent that such Verizon Telecommunications Service is provided to Verizon's Customers.
- 3.2 Except as otherwise required by Applicable Law, subject to Section 3.1 of this Attachment, Verizon shall have the right to add, modify, grandfather, discontinue or withdraw Verizon Telecommunications Services at any time, without the consent of Bandwidth.
- 3.3 To the extent required by Applicable Law, the Verizon Telecommunications Services to be provided to Bandwidth for resale pursuant to this Attachment will include a Verizon Telecommunications Service customer-specific contract service arrangement ("CSA") (such as a customer specific pricing arrangement or individual case based pricing arrangement) that Verizon is providing to a Verizon Customer at the time the CSA is requested by Bandwidth.

4. Responsibility for Charges

- 4.1 Bandwidth shall be responsible for and pay to Verizon all charges for any Telecommunications Services provided by Verizon or provided by persons other than Verizon and billed for by Verizon, that are ordered, activated or used by Bandwidth, Bandwidth Customers or any other persons, through, by means of, or in association with, Telecommunications Services provided by Verizon to Bandwidth pursuant to this Resale Attachment.
- 4.2 Upon request by Bandwidth, Verizon will provide for use on resold Verizon retail Telecommunications Service dial tone lines purchased by Bandwidth such Verizon retail Telecommunications Service call blocking and call screening services as Verizon provides to its own end user retail Customers, where and to the extent Verizon provides such Verizon retail Telecommunications Service call blocking services to Verizon's own end user retail Customers. Bandwidth understands and agrees that certain of Verizon's call blocking and call screening services are not guaranteed to block or screen all calls and that notwithstanding Bandwidth's purchase of such blocking or screening services, Bandwidth's end user Customers or other persons ordering, activating or using

Telecommunications Services on the resold dial tone lines may complete or accept calls which Bandwidth intended to block. Notwithstanding the foregoing, Bandwidth shall be responsible for and shall pay Verizon all charges for Telecommunications Services provided by Verizon or provided by persons other than Verizon and billed for by Verizon in accordance with the terms of Section 4.1 above.

5. Operations Matters

5.1 Facilities.

5.1.1 Verizon and its suppliers shall retain all of their right, title and interest in all facilities, equipment, software, information, and wiring used to provide Verizon Telecommunications Services.

5.1.2 Verizon shall have access at all reasonable times to Bandwidth Customer locations for the purpose of installing, inspecting, maintaining, repairing, and removing, facilities, equipment, software, and wiring used to provide the Verizon Telecommunications Services. Bandwidth shall, at Bandwidth's expense, obtain any rights and authorizations necessary for such access.

5.1.3 Except as otherwise agreed to in writing by Verizon, Verizon shall not be responsible for the installation, inspection, repair, maintenance, or removal of facilities, equipment, software, or wiring provided by Bandwidth or Bandwidth Customers for use with Verizon Telecommunications Services.

5.2 Branding.

5.2.1 Except as stated in Section 5.2.2 of this Attachment, in providing Verizon Telecommunications Services to Bandwidth, Verizon shall have the right (but not the obligation) to identify the Verizon Telecommunications Services with Verizon's trade names, trademarks and service marks ("Verizon Marks"), to the same extent that these Services are identified with Verizon's Marks when they are provided to Verizon's Customers. Any such identification of Verizon's Telecommunications Services shall not constitute the grant of a license or other right to Bandwidth to use Verizon's Marks.

5.2.2 To the extent required by Applicable Law, upon request by Bandwidth and at prices, terms and conditions to be negotiated by Bandwidth and Verizon, Verizon shall provide Verizon Telecommunications Services for resale that are identified by Bandwidth's trade name, or that are not identified by trade name, trademark or service mark.

5.2.3 If Verizon uses a third-party contractor to provide Verizon operator services or Verizon directory assistance, Bandwidth will be responsible for entering into a direct contractual arrangement with the third-party contractor at Bandwidth's expense (a) to obtain identification of Verizon operator services or Verizon directory assistance purchased by Bandwidth for resale with Bandwidth's trade name, or (b) to obtain removal of Verizon Marks from Verizon operator services or Verizon directory assistance purchased by Bandwidth for resale.

6. Rates and Charges

The rates and charges for Verizon Telecommunication Services purchased by Bandwidth for resale pursuant to this Attachment shall be as provided in this Attachment and the Pricing Attachment.

7. Good Faith Performance

If and, to the extent that, Verizon, prior to the Effective Date of this Agreement, has not provided in the State of South Carolina a Service offered under this Attachment, Verizon reserves the right to negotiate in good faith with Bandwidth reasonable terms and conditions (including, without limitation, rates and implementation timeframes) for such Service; and, if the Parties cannot agree to such terms and conditions (including, without limitation, rates and implementation timeframes), either Party may utilize the Agreement's dispute resolution procedures.

NETWORK ELEMENTS ATTACHMENT

1. General

- 1.1 Verizon shall provide to Bandwidth, in accordance with this Agreement (including, but not limited to, Verizon's applicable Tariffs) and the requirements of the Federal Unbundling Rules, access to Verizon's Network Elements on an unbundled basis and in combinations (Combinations), and UNEs commingled with wholesale services ("Commingling"); provided, however, that notwithstanding any other provision of this Agreement, Verizon shall be obligated to provide access to unbundled Network Elements (UNEs), Combinations, and Commingling to Bandwidth under the terms of this Agreement only to the extent required by the Federal Unbundling Rules and may decline to provide access to UNEs, Combinations, or Commingling to Bandwidth to the extent that provision of such UNEs, Combinations, or Commingling is not required by the Federal Unbundling Rules.
- 1.2 Verizon shall be obligated to combine UNEs that are not already combined in Verizon's network only to the extent required by the Federal Unbundling Rules. Except as otherwise required by this Agreement and the Federal Unbundling Rules: (a) Verizon shall be obligated to provide a UNE or Combination pursuant to this Agreement only to the extent such UNE or Combination, and the equipment and facilities necessary to provide such UNE or Combination, are already available in Verizon's network; and (b) Verizon shall have no obligation to construct, modify, or deploy facilities or equipment to offer any UNE or Combination.
- 1.3 Bandwidth may use a UNE or Combination only for those purposes for which Verizon is required by the Federal Unbundling Rules to provide such UNE or Combination to Bandwidth. Without limiting the foregoing, Bandwidth may not access a UNE or Combination for the exclusive provision of Mobile Wireless Services or Interexchange Services. For purposes of this section, "Interexchange Services" shall have the meaning set forth in the Triennial Review Remand Order and subsequent applicable FCC orders.
 - 1.3.1 Verizon shall not be obligated to provide to Bandwidth, and Bandwidth shall not request from Verizon, access to a proprietary advanced intelligent network service.
- 1.4 Nothing contained in this Agreement shall be deemed to constitute an agreement by Verizon that any item identified in this Agreement as a Network Element is (i) a Network Element under the Federal Unbundling Rules, or (ii) a Network Element Verizon is required by the Federal Unbundling Rules to provide to Bandwidth on an unbundled basis or in combination with other Network Elements.
- 1.5 If as the result of Bandwidth Customer actions (e.g., Customer Not Ready ("CNR")), Verizon cannot complete requested work activity when a technician has been dispatched to the Bandwidth Customer premises, Bandwidth will be assessed a non-recurring charge associated with this visit. This charge will be the sum of the applicable Service Order charge as provided in the Pricing Attachment and the Customer Not Ready Charge provided for in the Pricing

Attachment (or, in the absence of a Customer Not Ready Charge, the Premises Visit Charge as provided in Verizon's applicable retail or wholesale Tariff or in the Pricing Attachment).

- 1.6 Absence or Cessation of Unbundling Obligation and Related Provisions. The following provisions shall apply notwithstanding any other provision of this Agreement or any Verizon Tariff or SGAT:

1.6.1 Discontinued Facilities.

1.6.1.1 Verizon may cease offering or providing Bandwidth with access on an unbundled basis at rates prescribed under Section 251 of the Act to any facility that is or becomes a Discontinued Facility, whether as a stand-alone UNE, as part of a Combination, or otherwise. To the extent Verizon has not already ceased offering or providing unbundled access to a particular Discontinued Facility that is a Discontinued Facility as of the Effective Date, Verizon may cease offering or providing unbundled access to such Discontinued Facility immediately upon the Effective Date without further notice to Bandwidth. Subject to Section 1.7 below, if a facility on or at any time after the Effective Date is or becomes a Discontinued Facility, Verizon, to the extent it has not already ceased providing unbundled access to such Discontinued Facility, and provided it has given at least ninety (90) days written notice of discontinuance in cases where it has not already ceased providing such access, will continue to provide unbundled access to such Discontinued Facility under the Agreement only through the effective date of the notice of discontinuance, and not beyond that date.

1.6.1.2 Where Verizon is permitted to cease providing a Discontinued Facility pursuant to Section 1.6.1 above and Bandwidth has not submitted an LSR or ASR, as appropriate, to Verizon requesting disconnection of the Discontinued Facility and has not separately secured from Verizon an alternative arrangement to replace the Discontinued Facility, then Verizon, to the extent it has not already done so, may disconnect the subject Discontinued Facility without further notice to Bandwidth. In lieu of disconnecting the subject Discontinued Facility in the foregoing circumstances, Verizon, in its sole discretion, may elect to: (a) convert the subject Discontinued Facility to an arrangement available under a Verizon access tariff (in which case month-to-month rates shall apply unless a different rate applies under an applicable special access term/volume plan or other special access tariff arrangement in which Bandwidth is then enrolled), a resale arrangement, or other analogous arrangement that Verizon shall identify or has identified in writing to Bandwidth, or (b) in lieu of such a conversion, reprice the subject Discontinued Facility by application of a new rate (or, in Verizon's sole discretion, by application of a surcharge to an existing rate) to be equivalent to an arrangement available under a Verizon access tariff (at month-to-month rates unless a different rate

applies under an applicable special access term/volume plan or other special access tariff arrangement in which Bandwidth is then enrolled), a resale arrangement, or other analogous arrangement that Verizon shall identify or has identified in writing to Bandwidth; provided, however, that Verizon may disconnect the subject Discontinued Facility (or the replacement service to which the Discontinued Facility has been converted) if Bandwidth fails to pay when due any applicable new rate or surcharge billed by Verizon.

1.7 TRRO Certification and Related Provisions.

1.7.1 TRRO Certification. Before requesting unbundled access to a DS1 Loop, a DS3 Loop, DS1 Dedicated Transport, DS3 Dedicated Transport, or Dark Fiber Transport, including, but not limited to, any of the foregoing elements that constitute part of a Combination or that Bandwidth seeks to convert from another wholesale service to an unbundled network element (collectively, "TRRO Certification Elements"), Bandwidth must undertake a reasonably diligent inquiry and, based on that inquiry, certify that, to the best of its knowledge, Bandwidth's request is consistent with the requirements of the TRRO and that Bandwidth is entitled to unbundled access to the subject element pursuant to section 251(c)(3) of the Act. Bandwidth shall provide such certification using the automated method that Verizon makes available for that purpose. Bandwidth's reasonably diligent inquiry must include, at a minimum, consideration of any list of non-impaired UNE Wire Centers that Verizon makes or has made available to Bandwidth by notice and/or by publication on Verizon's wholesale website (the "Wire Center List") and any back-up data that Verizon provides or has provided to Bandwidth under a non-disclosure agreement or that is otherwise available to Bandwidth.

1.7.2 Provision-then-Dispute Requirements.

1.7.2.1 Upon receiving a request from Bandwidth for unbundled access to a TRRO Certification Element and the certification required by Section 1.7.1 above, and except as provided in Section 1.7.2.3 below, Verizon shall process the request in accordance with any applicable standard intervals. If Verizon wishes to challenge Bandwidth's right to obtain unbundled access to the subject element pursuant to 47 U.S.C. § 251(c)(3), then (except as provided in Section 1.7.2.3 below) Verizon must provision the subject element as a UNE and then seek resolution of the dispute by the Commission or the FCC, or through such other dispute resolution process that Verizon elects to invoke under the dispute resolution provisions of this Agreement.

1.7.2.2 If a dispute pursuant to section 1.7.2.1 above is resolved in Verizon's favor, then Bandwidth shall compensate Verizon for the additional charges that would apply if Bandwidth had ordered the subject facility or service on a month-to-month term under Verizon's interstate special access tariff (except as provided in section 1.7.2.2.1 below as to Dark Fiber Transport) and any other applicable charges, applicable back to the date of provisioning (including, but not limited to, late payment charges for the unpaid difference between

UNE and access tariff rates). The month-to-month rates shall apply until such time as Bandwidth requests disconnection of the subject facility or an alternative term that Verizon offers under its interstate special access tariff for the subject facility or service.

1.7.2.2.1 In the case of Dark Fiber Transport (there being no analogous service under Verizon's access tariffs), the monthly recurring charges that Verizon may charge, and that Bandwidth shall be obligated to pay, for each circuit shall be the charges for the commercial service that Verizon, in its sole discretion, determines to be analogous to the subject Dark Fiber Transport and, unless otherwise agreed in writing by the Parties, Verizon may, without further notice, disconnect the subject dark fiber facility within thirty (30) days of the date on which the dispute is resolved in Verizon's favor. In any case where Bandwidth, within thirty (30) days of the date on which the dispute is resolved in Verizon's favor, submits a valid ASR for a "lit" service to replace the subject Dark Fiber Transport facility, Verizon shall continue to provide the Dark Fiber Transport facility at the rates specified above, but only for the duration of the standard interval for installation of the "lit" service.

1.7.2.3 Notwithstanding any other provision of the Agreement, Verizon may reject a Bandwidth order for a TRRO Certification Element without first seeking dispute resolution: (a) in any case where Bandwidth's order conflicts with a provision of a Verizon Tariff, (b) in any case where Bandwidth's order conflicts with a non-impaired UNE Wire Center designation set forth in a Wire Center List that Verizon has made available to Bandwidth by notice and/or by publication on Verizon's wholesale website, (c) in any case where Bandwidth's order conflicts with a non-impaired UNE Wire Center designation that the Commission or the FCC has ordered or approved or that has otherwise been confirmed through previous dispute resolution (regardless of whether Bandwidth was a party to such dispute resolution), or (d) as otherwise permitted under the Federal Unbundling Rules (including, but not limited to, upon a determination by the Commission, the FCC, or a court of competent jurisdiction that Verizon may reject orders for TRRO Certification Elements without first seeking dispute resolution).

1.8 Limitation With Respect to Replacement Arrangements. Notwithstanding any other provision of this Agreement, any negotiations regarding any UNE-replacement arrangement, facility, service or the like that Verizon is not required to provide under the Federal Unbundling Rules (including without limitation any arrangement, facility, service or the like that Verizon offers under an access tariff) shall be deemed not to have been conducted pursuant to the Agreement, 47

U.S.C. § 252(a)(1), or 47 C.F.R. Part 51, and shall not be subject to arbitration or other requirements under to 47 U.S.C. § 252(b). Any reference in this Attachment to Verizon's provision of a arrangement, facility, service or the like that Verizon is not required to provide under the Federal Unbundling Rules is solely for the convenience of the Parties and shall not be construed to require or permit: (a) arbitration pursuant to 47 U.S.C. § 252(b) of the rates, terms, or conditions upon which Verizon may provide such arrangement, facility, service or the like, or (b) application of 47 U.S.C. § 252 in any other respect.

2. Verizon's Provision of Network Elements

Subject to the conditions set forth in Section 1 of this Attachment, in accordance with, but only to the extent required by, the Federal Unbundling Rules, Verizon shall provide Bandwidth access to the following:

- 2.1 Loops, as set forth in Section 3 of this Attachment;
- 2.2 Line Splitting (also referred to as "Loop Sharing"), as set forth in Section 4 of this Attachment;
- 2.3 [Intentionally Left Blank];
- 2.4 Sub-Loops, as set forth in Section 6 of this Attachment;
- 2.5 Sub-Loop for Multiunit Tenant Premises Access, as set forth in Section 7 of this Attachment;
- 2.6 Dark Fiber Transport (sometimes referred to as "Dark Fiber IOF"), as set forth in Section 8 of this Attachment;
- 2.7 Network Interface Device, as set forth in Section 9 of this Attachment;
- 2.8 [Intentionally Left Blank];
- 2.9 Dedicated Transport (may also be referred to as "Interoffice Transmission Facilities") (or "IOF"), as set forth in Section 11 of this Attachment;
- 2.10 [Intentionally Left Blank];
- 2.11 Operations Support Systems, as set forth in Section 13 of this Attachment; and
- 2.12 Other UNEs in accordance with Section 14 of this Attachment.

3. Loop Transmission Types

- 3.1 Subject to the conditions set forth in Section 1 of this Attachment, Verizon shall allow Bandwidth to access Loops unbundled from local switching and local transport, in accordance with this Section 3 and the rates and charges provided in the Pricing Attachment. Verizon shall allow Bandwidth access to Loops in accordance with, but only to extent required by, the Federal Unbundling Rules. Subject to the foregoing and the provisions regarding FTTP Loops, in Section 3.5 below, and Hybrid Loops, in Section 3.6 below, the available Loop types are as set forth below:

- 3.1.1 "2 Wire Analog Voice Grade Loop" or "Analog 2W" provides an effective 2-wire channel with 2-wire interfaces at each end that is suitable for the transport of analog Voice Grade (nominal 300 to 3000 Hz) signals and loop-start signaling. This Loop type is more fully

described in Verizon Technical Reference (TR)-72565, as revised from time-to-time. If "Customer-Specified Signaling" is requested, the Loop will operate with one of the following signaling types that may be specified when the Loop is ordered: loop-start, ground-start, loop-reverse-battery, and no signaling. Customer specified signaling is more fully described in Verizon TR-72570, as revised from time-to-time. Verizon will not build new facilities or modify existing facilities except to the extent required in Section 17 of this Attachment.

- 3.1.2 "4-Wire Analog Voice Grade Loop" or "Analog 4W" provides an effective 4-wire channel with 4-wire interfaces at each end that is suitable for the transport of analog Voice Grade (nominal 300 to 3000 Hz) signals. This Loop type will operate with one of the following signaling types that may be specified when the Loop is ordered: loop-start, ground-start, loop-reverse-battery, duplex, and no signaling. This Loop type is more fully described in Verizon TR-72570, as revised from time-to-time. Verizon will not build new facilities or modify existing facilities except to the extent required in Section 17 of this Attachment.
- 3.1.3 "2-Wire ISDN Digital Grade Loop" or "BRI ISDN" provides a channel with 2-wire interfaces at each end that is suitable for the transport of 160 kbps digital services using the ISDN 2B1Q line code. This Loop type is more fully described in American National Standards Institute (ANSI) T1.601-1998 and Verizon TR 72575, as revised from time-to-time. In some cases loop extension equipment may be necessary to bring the line loss within acceptable levels. Verizon will provide loop extension equipment only upon request. A separate charge will apply for loop extension equipment. The 2-Wire ISDN Digital Grade Loop is available only in the former Bell Atlantic Service Areas. In the former GTE Service Areas only, Bandwidth may order a 2-Wire Digital Compatible Loop using 2-wire ISDN ordering codes to provide similar capability. Verizon will not build new facilities or modify existing facilities except to the extent required in Section 17 of this Attachment.
- 3.1.4 "2-Wire ADSL-Compatible Loop" or "ADSL 2W" provides a channel with 2-wire interfaces at each end that is suitable for the transport of digital signals up to 8 Mbps toward the Customer and up to 1 Mbps from the Customer. This Loop type is more fully described in Verizon TR-72575, as revised from time-to-time. ADSL-Compatible Loops will be available only where existing copper facilities are available and meet applicable specifications. Verizon will not build new facilities or modify existing facilities except to the extent required in Sections 3.2 or 17 of this Attachment. The upstream and downstream ADSL power spectral density masks and dc line power limits in Verizon TR 72575, as revised from time-to-time, must be met. The 2-Wire ADSL-Compatible Loop is available only in the former Bell Atlantic Service Areas. In the former GTE Service Areas only, Bandwidth may order a 2-Wire Digital Compatible Loop using 2-wire ADSL ordering codes to provide similar capability.
- 3.1.5 "2-Wire HDSL-Compatible Loop" or "HDSL 2W" consists of a single 2-wire non-loaded, twisted copper pair that meets the carrier serving area design criteria. This Loop type is more fully described in Verizon TR-72575, as revised from time-to-time. The HDSL power spectral density mask and dc line power limits referenced in Verizon TR 72575,

as revised from time-to-time, must be met. 2-Wire HDSL-Compatible Loops will be provided only where existing facilities are available and can meet applicable specifications. The 2-Wire HDSL-Compatible Loop is available only in the former Bell Atlantic Service areas. In the former GTE Service Areas only, Bandwidth may order a 2-Wire Digital Compatible Loop using 2-Wire HDSL ordering codes to provide similar capability. Verizon will not build new facilities or modify existing facilities except to the extent required in Sections 3.2 or 17 of this Attachment.

- 3.1.6 "4-Wire HDSL-Compatible Loop" or "HDSL 4W" consists of two 2-wire non-loaded, twisted copper pairs that meet the carrier serving area design criteria. This Loop type is more fully described in Verizon TR-72575, as revised from time-to-time. The HDSL power spectral density mask and dc line power limits referenced in Verizon TR 72575, as revised from time-to-time, must be met. 4-Wire HDSL-Compatible Loops will be provided only where existing facilities are available and can meet applicable specifications. Verizon will not build new facilities or modify existing facilities except to the extent required in Sections 3.2 or 17 of this Attachment.
- 3.1.7 "2-Wire IDSL-Compatible Metallic Loop" consists of a single 2-wire non-loaded, twisted copper pair that meets revised resistance design criteria. This Loop is intended to be used with very-low band symmetric DSL systems that meet the Class 1 signal power limits and other criteria in the T1E1.4 loop spectrum management standard (T1E1.4/2000-002R3) and are not compatible with 2B1Q 160 kbps ISDN transport systems. The actual data rate achieved depends upon the performance of CLEC-provided modems with the electrical characteristics associated with the loop. This Loop type is more fully described in T1E1.4/2000-002R3, as revised from time-to-time. This loop cannot be provided via UDLC. The 2-Wire IDSL-Compatible Metallic Loop is available only in the former Bell Atlantic Service Areas. In the former GTE Service Areas only, Bandwidth may order a 2-Wire Digital Compatible Loop using ISDN ordering codes to provide similar capability. Verizon will not build new facilities or modify existing facilities except to the extent required in Sections 3.2 or 17 of this Attachment.
- 3.1.8 "2-Wire SDSL-Compatible Loop", is intended to be used with low band symmetric DSL systems that meet the Class 2 signal power limits and other criteria in the T1E1.4 loop spectrum management standard (T1E1.4/2000-002R3). This Loop consists of a single 2-wire non-loaded, twisted copper pair that meets Class 2 length limit in T1E1.4/2000-002R3. The data rate achieved depends on the performance of the CLEC-provided modems with the electrical characteristics associated with the loop. This Loop type is more fully described in T1E1.4/2000-002R3, as revised from time-to-time. The 2-Wire SDSL-Compatible Loop is available only in the former Bell Atlantic Service Areas. In the former GTE Service Areas only, Bandwidth may order a 2-Wire Digital Compatible Loop to provide similar capability. SDSL-compatible local loops will be provided only where facilities are available and can meet applicable specifications. Verizon will not build new facilities or modify existing facilities except to the extent required in Sections 3.2 or 17 of this Attachment.

- 3.1.9 "4-Wire 56 kbps Loop" is a 4-wire Loop that provides a transmission path that is suitable for the transport of digital data at a synchronous rate of 56 kbps in opposite directions on such Loop simultaneously. A 4-Wire 56 kbps Loop consists of two pairs of non-loaded copper wires with no intermediate electronics or it consists of universal digital loop carrier with 56 kbps DDS dataport transport capability. Verizon shall provide 4-Wire 56 kbps Loops to Bandwidth in accordance with, and subject to, the technical specifications set forth in Verizon TR-72575, as revised from time-to-time. Verizon will not build new facilities or modify existing facilities except to the extent required in Section 17 of this Attachment.
- 3.1.10 "DS1 Loops" provide a digital transmission channel suitable for the transport of 1.544 Mbps digital signals. This Loop type is more fully described in Verizon TR 72575, as revised from time to time. The DS1 Loop includes the electronics necessary to provide the DS1 transmission rate. If, at the requested installation date, the electronics necessary to provide the DS1 transmission rate are not available for the requested DS1 Loop, then Verizon will not install new electronics except to the extent required in Section 17 of this Attachment. Verizon will not build new facilities and will not modify existing facilities except to the extent required in Section 17 of this Attachment. If the electronics necessary to provide Clear Channel (B8ZS) signaling are at the requested installation date available for a requested DS1 Loop, upon request by Bandwidth, the DS1 Loop will be furnished with Clear Channel (B8ZS) signaling. Verizon will not install new electronics to furnish Clear Channel (B8ZS) signaling. For purposes of provisions implementing any right Verizon may have to cease providing unbundled access to DS1-capacity Loops under the TRRO pursuant to Section 1 of this Attachment, the term "DS1 Loop" further includes any type of Loop described in Section 3.1 of the Network Elements Attachment that provides a digital transmission channel suitable for the transport of 1.544 Mbps digital signals, regardless of whether the subject Loop meets the specific definition of a DS1 Loop set forth in this section.
- 3.1.11 "DS3 Loops" will support the transmission of isochronous bipolar serial data at a rate of 44.736 Mbps (the equivalent of 28 DS1 channels). This Loop type is more fully described in Verizon TR 72575, as revised from time to time. The DS3 Loop includes the electronics necessary to provide the DS3 transmission rate. If, at the requested installation date, the electronics necessary to provide the DS3 transmission rate are not available for the requested DS3 Loop, then Verizon will not install new electronics except to the extent required in Section 17 of this Attachment. Verizon will not build new facilities and will not modify existing facilities except to the extent required in Section 17 of this Attachment. For purposes of provisions implementing any right Verizon may have to cease providing unbundled access to DS3-capacity loops under the TRRO pursuant to Section 1 of this Attachment, the term "DS3 Loop" further includes any type of Loop described in Section 3.1 of the Network Elements Attachment that provides a digital transmission channel suitable for the transport of 44.736 Mbps digital signals, regardless of whether the subject Loop meets the specific definition of a DS3 Loop set forth in this section.

- 3.1.12 In the former Bell Atlantic Service Areas only, "Digital Designed Loops" are comprised of designed loops that meet specific Bandwidth requirements for metallic loops over 18k ft. or for conditioning of ADSL, HDSL, SDSL, IDSL, or BRI ISDN Loops. "Digital Designed Loops" may include requests for:
- 3.1.12.1 a 2W Digital Designed Metallic Loop with a total loop length of 18k to 30k ft., unloaded, with the option to remove bridged tap;
 - 3.1.12.2 a 2W ADSL Loop of 12k to 18k ft. with an option to remove bridged tap (such a Loop with the bridged tap so removed shall be deemed to be a "2W ADSL Compatible Loop");
 - 3.1.12.3 a 2W ADSL Loop of less than 12k ft. with an option to remove bridged tap (such a Loop with the bridged tap so removed shall be deemed to be a "2W ADSL Compatible Loop");
 - 3.1.12.4 a 2W HDSL Loop of less than 12k ft. with an option to remove bridged tap;
 - 3.1.12.5 a 4W HDSL Loop of less than 12k ft with an option to remove bridged tap;
 - 3.1.12.6 a 2 W Digital Designed Metallic Loop with Verizon-placed ISDN loop extension electronics;
 - 3.1.12.7 a 2W SDSL Loop with an option to remove bridged tap; and
 - 3.1.12.8 a 2W IDSL Loop of less than 18k ft. with an option to remove bridged tap;
- 3.1.13 Verizon shall make Digital Designed Loops available Bandwidth at the rates as set forth in the Pricing Attachment.
- 3.1.14 In the former GTE Service Areas only, "Conditioned Loops" are comprised of designed loops that meet specific Bandwidth requirements for metallic loops over 12k ft. or for conditioning of 2-wire or 4-wire digital or BRI ISDN Loops. "Conditioned Loops" may include requests for:
- 3.1.14.1 a 2W Digital Loop with a total loop length of 12k to 30k ft., unloaded, with the option to remove bridged tap (such a Loop, unloaded, with bridged tap so removed shall be deemed to be a "2W Digital Compatible Loop");
 - 3.1.14.2 a 2W Digital Loop of 12k to 18k ft. with an option to remove load coils and/or bridged tap (such a Loop with load coils and/or bridged tap so removed shall be deemed to be a "2W Digital Compatible Loop");
 - 3.1.14.3 a 2W Digital or 4W Digital Loop of less than 12k ft. with an option to remove bridged tap (such a 2W Loop with bridged tap so removed shall be deemed to be a "2W Digital Compatible Loop");

- 3.1.14.4 a 2W Digital Loop with Verizon-placed ISDN loop extension electronics (such a Loop with ISDN loop extension electronics so placed shall be deemed to be a "2W Digital Compatible Loop").
 - 3.1.15 Verizon shall make Conditioned Loops available to Bandwidth at the rates as set forth in the Pricing Attachment.
- 3.2 The following ordering procedures shall apply to xDSL Compatible Loops, Digital Designed and Conditioned Loops:
 - 3.2.1 Bandwidth shall place orders for xDSL Compatible Loops, Digital Designed and Conditioned Loops by delivering to Verizon a valid electronic transmittal Service Order or other mutually agreed upon type of Service Order. Such Service Order shall be provided in accordance with industry format and specifications or such format and specifications as may be agreed to by the Parties.
 - 3.2.2 In former Bell Atlantic Service Areas, Verizon is conducting a mechanized survey of existing Loop facilities, on a Central Office by Central Office basis, to identify those Loops that meet the applicable technical characteristics established by Verizon for compatibility with xDSL Compatible or BRI ISDN signals. The results of this survey will be stored in a mechanized database and made available to Bandwidth as the process is completed in each Central Office. Bandwidth must utilize this mechanized loop qualification database, where available, in advance of submitting a valid electronic transmittal Service Order for an xDSL Compatible or BRI ISDN Loop. Charges for mechanized loop qualification information are set forth in the Pricing Attachment. In former GTE Service Areas, Verizon provides access to mechanized xDSL loop qualification information to help identify those loops that meet applicable technical characteristics for compatibility with xDSL Services that the CLEC may wish to offer to its end user Customers. Bandwidth must access Verizon's mechanized loop qualification system through the use of the on-line computer interface at www.verizon.com/wise in advance of submitting a valid electronic transmittal Service Order for xDSL service arrangements. The loop qualification information provided by Verizon gives Bandwidth the ability to determine loop composition and loop length, and may provide other loop characteristics, when present, that may indicate incompatibility with xDSL Services such as load coils or Digital Loop Carrier. Information provided by the mechanized loop qualification system also indicates whether loop conditioning may be necessary. It is the responsibility of Bandwidth to evaluate the loop qualification information provided by Verizon and determine whether a loop meets Bandwidth requirements for xDSL Service, including determining whether conditioning should be ordered, prior to submitting an Order.
 - 3.2.3 If the Loop is not listed in the mechanized database described in Section 3.2.2 of this Attachment, Bandwidth must request a manual loop qualification, where such qualification is available, prior to submitting a valid electronic Service Order for an xDSL Compatible or BRI ISDN Loop. In general, Verizon will complete a manual loop qualification request within three (3) Business Days, although Verizon may require additional time due to poor record conditions, spikes in demand, or other unforeseen events. The manual loop qualification

process is currently available in the former Bell Atlantic Service Areas only.

- 3.2.4 If a query to the mechanized loop qualification database or manual loop qualification indicates that a Loop does not qualify (e.g., because it does not meet the applicable technical parameters set forth in the Loop descriptions above), Bandwidth may request an Engineering Query, where available, as described in Section 3.2.7 of this Attachment, to determine whether the result is due to characteristics of the loop itself (e.g., specific number and location of bridged taps, the specific number of load coils, or the gauge of the cable).
- 3.2.5 Once a Loop has been pre-qualified, Bandwidth will submit a Service Order pursuant to Section 3.2.1 of this Attachment if it wishes to obtain the Loop.
 - 3.2.5.1 If the Loop is determined to be xDSL Compatible and if the Loop serving the serving address is usable and available to be assigned as a xDSL Compatible Loop, Verizon will initiate standard Loop provisioning and installation processes, and standard Loop provisioning intervals will apply.
 - 3.2.5.2 If the Loop is determined to be xDSL Compatible, but the Loop serving the service address is unusable or unavailable to be assigned as an xDSL Compatible Loop, Verizon will search the Customer's serving terminal for a suitable spare facility. If an xDSL Compatible Loop is found within the serving terminal, Verizon will perform a Line and Station Transfer (or "pair swap") whereby the Verizon technician will transfer the Customer's existing service from one existing Loop facility onto an alternate existing xDSL Compatible Loop facility serving the same location. Verizon performs Line and Station Transfers in accordance with the procedures developed in the DSL Collaborative in the State of New York, NY PSC Case 00-C-0127. Standard intervals do not apply when Verizon performs a Line and Station Transfer, and additional charges shall apply as set forth in the Pricing Attachment.
- 3.2.6 If Bandwidth submits a Service Order for an xDSL Compatible or BRI ISDN Loop that has not been prequalified, Verizon will query the Service Order back to Bandwidth for qualification and will not accept such Service Order until the Loop has been prequalified on a mechanized or manual basis. If Bandwidth submits a Service Order for an xDSL Compatible or BRI ISDN Loop that is, in fact, not compatible with the requested service (e.g. ADSL, HDSL etc.) in its existing condition, Verizon will respond back to Bandwidth with a "Nonqualified" indicator and with information showing whether the non-qualified result is due to the presence of load coils, presence of digital loop carrier, or loop length (including bridged tap).
- 3.2.7 Where Bandwidth has followed the prequalification procedure described above and has determined that a Loop is not compatible with xDSL technologies or BRI ISDN service in its existing condition, it may either request an Engineering Query, where available, to determine whether conditioning may make the Loop compatible with

the applicable service; or if Bandwidth is already aware of the conditioning required (e.g., where Bandwidth has previously requested a qualification and has obtained loop characteristics), Bandwidth may submit a Service Order for a Digital Designed Loop. Verizon will undertake to condition or extend the Loop in accordance with this Section 3.2 of this Attachment upon receipt of Bandwidth's valid, accurate and pre-qualified Service Order for a Digital Designed Loop.

3.2.8 The Parties will make reasonable efforts to coordinate their respective roles in order to minimize provisioning problems. In general, where conditioning or loop extensions are requested by Bandwidth, an interval of eighteen (18) Business Days will be required by Verizon to complete the loop analysis and the necessary construction work involved in conditioning and/or extending the loop as follows:

3.2.8.1 Three (3) Business Days will be required following receipt of Bandwidth's valid, accurate and pre-qualified Service Order for a Digital Designed or Conditioned Loop to analyze the loop and related plant records and to create an Engineering Work Order.

3.2.8.2 Upon completion of an Engineering Work Order, Verizon will initiate the construction order to perform the changes/modifications to the Loop requested by Bandwidth. Conditioning activities are, in most cases, able to be accomplished within fifteen (15) Business Days. Unforeseen conditions may add to this interval.

After the engineering and conditioning tasks have been completed, the standard Loop provisioning and installation process will be initiated, subject to Verizon's standard provisioning intervals.

3.2.9 If Bandwidth requires a change in scheduling, it must contact Verizon to issue a supplement to the original Service Order. If Bandwidth cancels the request for conditioning after a loop analysis has been completed but prior to the commencement of construction work, Bandwidth shall compensate Verizon for an Engineering Work Order charge as set forth in the Pricing Attachment. If Bandwidth cancels the request for conditioning after the loop analysis has been completed and after construction work has started or is complete, Bandwidth shall compensate Verizon for an Engineering Work Order charge as well as the charges associated with the conditioning tasks performed as set forth in the Pricing Attachment.

3.3 Conversion of Live Telephone Exchange Service to Analog 2W Loops.

3.3.1 The following coordination procedures shall apply to "live" cutovers of Verizon Customers who are converting their Telephone Exchange Services to Bandwidth Telephone Exchange Services provisioned over Analog 2W unbundled Local Loops ("Analog 2W Loops") to be provided by Verizon to Bandwidth:

3.3.1.1 Coordinated cutover charges shall apply to conversions of live Telephone Exchange Services to Analog 2W Loops. When an outside dispatch is required to perform a conversion, additional charges may apply. If Bandwidth does not request a coordinated cutover, Verizon will

process Bandwidth's order as a new installation subject to applicable standard provisioning intervals.

- 3.3.1.2 Bandwidth shall request Analog 2W Loops for coordinated cutover from Verizon by delivering to Verizon a valid electronic Local Service Request ("LSR"). Verizon agrees to accept from Bandwidth the date and time for the conversion designated on the LSR ("Scheduled Conversion Time"), provided that such designation is within the regularly scheduled operating hours of the Verizon Regional CLEC Control Center ("RCCC") and subject to the availability of Verizon's work force. In the event that Verizon's work force is not available, Bandwidth and Verizon shall mutually agree on a New Conversion Time, as defined below. Bandwidth shall designate the Scheduled Conversion Time subject to Verizon standard provisioning intervals as stated in the Verizon CLEC Handbook, as may be revised from time to time. Within three (3) Business Days of Verizon's receipt of such valid LSR, or as otherwise required by the Federal Unbundling Rules, Verizon shall provide Bandwidth the scheduled due date for conversion of the Analog 2W Loops covered by such LSR.
- 3.3.1.3 Bandwidth shall provide dial tone at the Bandwidth collocation site at least forty-eight (48) hours prior to the Scheduled Conversion Time.
- 3.3.1.4 Either Party may contact the other Party to negotiate a new Scheduled Conversion Time (the "New Conversion Time"); provided, however, that each Party shall use commercially reasonable efforts to provide four (4) business hours' advance notice to the other Party of its request for a New Conversion Time. Any Scheduled Conversion Time or New Conversion Time may not be rescheduled more than one (1) time in a Business Day, and any two New Conversion Times for a particular Analog 2W Loop shall differ by at least eight (8) hours, unless otherwise agreed to by the Parties.
- 3.3.1.5 If the New Conversion Time is more than one (1) business hour from the original Scheduled Conversion Time or from the previous New Conversion Time, the Party requesting such New Conversion Time shall be subject to the following:
 - 3.3.1.5.1 If Verizon requests to reschedule outside of the one (1) hour time frame above, the Analog 2W Loops Service Order Charge for the original Scheduled Conversion Time or the previous New Conversion Time shall be credited upon request from Bandwidth; and
 - 3.3.1.5.2 If Bandwidth requests to reschedule outside the one (1) hour time frame above, Bandwidth shall be charged an additional Analog 2W Loops Service Order Charge for rescheduling the conversion to the New Conversion Time.

- 3.3.1.6 If Bandwidth is not ready to accept service at the Scheduled Conversion Time or at a New Conversion Time, as applicable, an additional Service Order Charge shall apply. If Verizon is not available or ready to perform the conversion within thirty (30) minutes of the Scheduled Conversion Time or New Conversion Time, as applicable, Verizon and Bandwidth will reschedule and, upon request from Bandwidth, Verizon will credit the Analog 2W Loop Service Order Charge for the original Scheduled Conversion Time.
- 3.3.1.7 The standard time interval expected from disconnection of a live Telephone Exchange Service to the connection of the Analog 2W Loops to Bandwidth is fifteen (15) minutes per Analog 2W Loop for all orders consisting of twenty (20) Analog 2W Loops or less. Orders involving more than twenty (20) Loops will require a negotiated interval.
- 3.3.1.8 Conversions involving LNP will be completed according to North American Numbering Council (NANC) standards, via the regional Number Portability Administration Center (NPAC).
- 3.3.1.9 If Bandwidth requires Analog 2W Loop conversions outside of the regularly scheduled Verizon RCCC operating hours, such conversions shall be separately negotiated. Additional charges (e.g. overtime labor charges) may apply for desired dates and times outside of regularly scheduled RCCC operating hours.
- 3.4 [Intentionally Left Blank].
- 3.5 FTTP Loops.
 - 3.5.1 New Builds. Notwithstanding any other provision of the Agreement or any Verizon Tariff, Bandwidth shall not be entitled to obtain access to a FTTP Loop, or any segment thereof, on an unbundled basis when Verizon deploys such a Loop to the Customer premises of an end user that has not been served by any Verizon Loop other than a FTTP Loop.
 - 3.5.2 Overbuilds. Notwithstanding any other provision of the Agreement or any Verizon Tariff, if (a) Verizon deploys an FTTP Loop to replace a copper Loop previously used to serve a particular end user's customer premises, and (b) Verizon retires that copper Loop and there are no other available copper Loops or Hybrid Loops for Bandwidth's provision of a voice grade service to that end user's customer premises, then in accordance with, but only to the extent required by, the Federal Unbundling Rules, Verizon shall provide Bandwidth with nondiscriminatory access on an unbundled basis to a transmission path capable of providing DS0 voice grade service to that end user's customer premises.
- 3.6 Hybrid Loops.
 - 3.6.1 Packet Switched Features, Functions, and Capabilities. Notwithstanding any other provision of this Agreement or any Verizon

Tariff or SGAT, Bandwidth shall not be entitled to obtain access to the Packet Switched features, functions, or capabilities of any Hybrid Loop on an unbundled basis.

- 3.6.2 **Broadband Services.** Subject to the conditions set forth in Section 1 of this Attachment, when Bandwidth seeks access to a Hybrid Loop for the provision of "broadband services," as such term is defined by the FCC, then in accordance with, but only to the extent required by, the Federal Unbundling Rules, Verizon shall provide Bandwidth with unbundled access to the existing time division multiplexing features, functions, and capabilities of that Hybrid Loop, including DS1 or DS3 capacity (but only where impairment has been found to exist, which, for the avoidance of any doubt, does not include instances where Verizon is not required to provide unbundled access to a DS1 Loop or a DS3 Loop under Section 1 of this Attachment) to establish a complete time division multiplexing transmission path between the main distribution frame (or equivalent) in a Verizon End Office serving an end user to the demarcation point at the end user's Customer premises. This access includes access to all features, functions, and capabilities of the Hybrid Loop that are not used to transmit packetized information.
- 3.6.3 **Narrowband Services.** Subject to the conditions set forth in Section 1 of this Attachment, when Bandwidth seeks access to a Hybrid Loop for the provision to its Customer of "narrowband services," as such term is defined by the FCC, then in accordance with, but only to the extent required by, the Federal Unbundling Rules, Verizon shall, in its sole discretion, either (a) provide access to a spare home-run copper Loop serving that Customer on an unbundled basis, or (b) provide access, on an unbundled basis, to a DS0 voice-grade transmission path between the main distribution frame (or equivalent) in the end user's serving End Office and the end user's Customer premises, using time division multiplexing technology.
- 3.6.4 **IDLC Hybrid Loops and Loops Provisioned via Loop Concentrator.** Subject to the conditions set forth in Section 1 of this Attachment, if Bandwidth requests, in order to provide narrowband services, unbundling of a 2 wire analog or 4 wire analog Loop currently provisioned via Integrated Digital Loop Carrier (over a Hybrid Loop) or via Remote Switching technology deployed as a Loop concentrator Verizon shall, in accordance with but only to the extent required by the Federal Unbundling Rules, provide Bandwidth unbundled access to a Loop capable of voice-grade service to the end user Customer served by the Hybrid Loop.
- 3.6.4.1 Verizon will endeavor to provide Bandwidth with an existing copper Loop or a Loop served by existing Universal Digital Loop Carrier ("UDLC"). Standard recurring and non-recurring Loop charges will apply. In addition, a non-recurring charge will apply whenever a line and station transfer is performed.
- 3.6.4.2 If neither a copper Loop nor a Loop served by UDLC is available, Verizon shall, upon request of Bandwidth, provide unbundled access to a DS0 voice-grade transmission path between the main distribution frame (or equivalent) in the end user's serving End Office and the end user's Customer

premises via such technically feasible alternative that Verizon in its sole discretion may elect to employ. In addition to the rates and charges payable in connection with any unbundled Loop so provisioned by Verizon, Bandwidth shall be responsible for any of the following charges that apply in the event the technically feasible option involves construction, installation, or modification of facilities: (a) an engineering query charge for preparation of a price quote; (b) upon Bandwidth's submission of a firm construction order, an engineering work order nonrecurring charge; and (c) construction charges, as set forth in the price quote. If the order is cancelled by Bandwidth after construction work has started, Bandwidth shall be responsible for cancellation charges and a pro-rated charge for construction work performed prior to the cancellation.

- 3.6.4.3 Verizon may exclude its performance in connection with providing unbundled Loops pursuant to this Section 3.6.4 from standard provisioning intervals and performance measures and remedies, if any, contained in the Agreement or elsewhere.

4. Line Splitting (also referred to as "Loop Sharing")

- 4.1 Line Splitting is a process in which one CLEC provides narrowband voice service over the low frequency portion of an unbundled copper Loop obtained from Verizon (such CLEC may be referred to as the "VLEC") and a second CLEC provides digital subscriber line service over the high frequency portion of that same Loop (such CLEC may be referred to as the "DLEC"). Line Splitting is accomplished through the use of a splitter collocated at the Verizon central office where the Loop terminates into a distribution frame or its equivalent.
- 4.2 Subject to the conditions set forth in Section 1 of this Attachment, Bandwidth may engage in Line Splitting, in accordance with this Section 4 and the rates and charges provided for in the Pricing Attachment. Verizon shall provide access to Line Splitting in accordance with, but only to the extent required by, the Federal Unbundling Rules.
- 4.3 Any Line Splitting between Bandwidth and another CLEC shall be accomplished by prior negotiated arrangement between Bandwidth and the other CLEC. Bandwidth shall give Verizon written notice of this arrangement through the Verizon Partner Solutions Local Service Customer Profile Form (formerly referred to as the Verizon Wholesale Local Service Customer Profile Form) on the Verizon Partner Solutions website (formerly referred to as the Verizon wholesale website), or such other electronic notice mechanism that Verizon may make available, at least thirty (30) days prior to placing an order for a Line Splitting arrangement with such other CLEC. The other CLEC must have an interconnection agreement with Verizon that permits it to engage in Line Splitting with Bandwidth. The VLEC shall be responsible for all rates and charges associated with the subject Loop as well as rates and charges associated with the DLEC's use of the high frequency portion of the Loop, including, but not limited to, service order charges, provisioning and installation charges, central office wiring, loop qualification charges, and OSS charges.
- 4.4 In order to facilitate Bandwidth's engaging in Line Splitting pursuant to this Section 4, Bandwidth may order for use in a Line Splitting arrangement, those Network Elements, Combinations, Collocation arrangements, services, facilities,

equipment and arrangements, appropriate for Line Splitting, that are offered to Bandwidth by Verizon under the other sections of this Agreement. Such Network Elements, Combinations, Collocation arrangements, services, facilities, equipment and arrangements, will be provided to Bandwidth in accordance with, and subject to, the rates and charges and other provisions of this Agreement and Verizon's applicable Tariffs. Verizon shall be obligated to provide Network Elements, Combinations, Collocation arrangements, services, facilities, equipment and arrangements, for Line Splitting only to the extent required by the Federal Unbundling Rules.

- 4.5 Bandwidth and/or the other participating CLEC shall provide any splitters and/or Digital Subscriber Line Access Multiplexers used in a Line Splitting arrangement.
- 4.6 The standard provisioning interval for the Line Splitting arrangement shall be as set out in the Verizon Product Interval Guide; provided that the standard provisioning interval for a Line Splitting arrangement shall not exceed the shortest of the following intervals: (1) the standard provisioning interval for a Line Splitting arrangement if stated in an applicable Verizon Tariff; or, (2) the standard provisioning interval for a Line Splitting arrangement, if any, established in accordance with the Federal Unbundling Rules. The standard provisioning interval for a Line Splitting arrangement shall commence only after any required engineering and conditioning tasks have been completed. The standard provisioning interval shall not apply where a Line and Station Transfer is performed.
- 4.7 Verizon shall not be liable for any claims, damages, penalties, liabilities or the like of any kind for disruptions to either Bandwidth's or the other CLEC's respective voice or data services over a Line Splitting arrangement.

5. [This Section Intentionally Left Blank]

6. Sub-Loop

Subject to the conditions set forth in Section 1 of this Attachment and upon request by Bandwidth, Verizon shall allow Bandwidth to access Sub-Loops unbundled from local switching and transport, in accordance with the terms of this Section 6 and the rates and charges set forth in the Pricing Attachment. Verizon shall allow Bandwidth access to Sub-Loops in accordance with, but only to the extent required by, the Federal Unbundling Rules. The available Sub-Loop types are as set forth below.

6.1 Unbundled Sub-Loop Arrangement– Distribution (USLA).

Subject to the conditions set forth in Section 1 of this Attachment and upon request by Bandwidth, Verizon shall provide Bandwidth with access to a Sub-Loop Distribution Facility in accordance with, and subject to, the terms and provisions of this Section 6.1, the rates set forth in the Pricing Attachment, and the rates, terms and conditions set forth in Verizon's applicable Tariffs. Verizon shall provide Bandwidth with access to a Sub-Loop Distribution Facility in accordance with, but only to the extent required by, the Federal Unbundling Rules.

- 6.1.1 Bandwidth may request that Verizon reactivate (if available) an unused drop and NID or provide Bandwidth with access to a drop and NID that, at the time of Bandwidth's request, Verizon is using to provide service to the Customer (as such term is hereinafter defined).

- 6.1.2 Upon site-specific request, Bandwidth may obtain access to the Sub-Loop Distribution Facility at a technically feasible access point located near a Verizon remote terminal equipment enclosure at the rates and charges provided for in the Pricing Attachment. It is not technically feasible to access the Sub-Loop Distribution Facility if a technician must access the facility by removing a splice case to reach the wiring within the cable. Bandwidth may obtain access to a Sub-Loop Distribution Facility through any method required by the Federal Unbundling Rules, in addition to existing methods such as from a Telecommunications outside plant interconnection cabinet (TOPIC) or, if Bandwidth is collocated at a remote terminal equipment enclosure and the FDI for such Sub-Loop Distribution Facility is located in such enclosure, from the collocation arrangement of Bandwidth at such terminal. If Bandwidth obtains access to a Sub-Loop Distribution Facility from a TOPIC, Bandwidth shall install a TOPIC on an easement or Right of Way obtained by Bandwidth within 100 feet of the Verizon FDI to which such Sub-Loop Distribution Facility is connected. A TOPIC must comply with applicable industry standards. Subject to the terms of applicable Verizon easements, Verizon shall furnish and place an interconnecting cable between a Verizon FDI and a Bandwidth TOPIC and Verizon shall install a termination block within such TOPIC. Verizon shall retain title to and maintain the interconnecting cable. Verizon shall not be responsible for building, maintaining or servicing the TOPIC and shall not provide any power that might be required by Bandwidth for any of Bandwidth's electronics in the TOPIC. Bandwidth shall provide any easement, Right of Way or trenching or supporting structure required for any portion of an interconnecting cable that runs beyond a Verizon easement.
- 6.1.3 Bandwidth may request from Verizon by submitting a loop make-up engineering query to Verizon, and Verizon shall provide to Bandwidth, the following information regarding a Sub-Loop Distribution Facility that serves an identified Customer: the Sub-Loop Distribution Facility's length and gauge; whether the Sub-Loop Distribution Facility has loading and bridged tap; the amount of bridged tap (if any) on the Sub-Loop Distribution Facility; and, the location of the FDI to which the Sub-Loop Distribution Facility is connected.
- 6.1.4 To order access to a Sub-Loop Distribution Facility from a TOPIC, Bandwidth must first request that Verizon connect the Verizon FDI to which the Sub-Loop Distribution Facility is connected to a Bandwidth TOPIC. To make such a request, Bandwidth must submit to Verizon an application (a "Sub-Loop Distribution Facility Interconnection Application") that identifies the FDI at which Bandwidth wishes to access the Sub-Loop Distribution Facility. A Sub-Loop Distribution Facility Interconnection Application shall state the location of the TOPIC, the size of the interconnecting cable and a description of the cable's supporting structure. A Sub-Loop Distribution Facility Interconnection Application shall also include a five-year forecast of Bandwidth's demand for access to Sub-Loop Distribution Facilities at the requested FDI. Bandwidth must submit the application fee set forth in the Pricing Attachment attached hereto and Verizon's applicable Tariffs (a "Sub-Loop Distribution Facility Application Fee") with Sub-Loop Distribution Facility Interconnection Application. Bandwidth must submit Sub-Loop Interconnection Applications to:

Bandwidth's Account Manager

- 6.1.5 Within sixty (60) days after it receives a complete Sub-Loop Distribution Facility Interconnection Application for access to a Sub-Loop Distribution Facility and the Sub-Loop Distribution Facility Application Fee for such application, Verizon shall provide to Bandwidth a work order that describes the work that Verizon must perform to provide such access (a "Sub-Loop Distribution Facility Work Order") and a statement of the cost of such work (a "Sub-Loop Distribution Facility Interconnection Cost Statement").
- 6.1.6 Bandwidth shall pay to Verizon fifty percent (50%) of the cost set forth in a Sub-Loop Distribution Facility Interconnection Cost Statement within sixty (60) days of Bandwidth's receipt of such statement and the associated Sub-Loop Distribution Facility Work Order, and Verizon shall not be obligated to perform any of the work set forth in such order until Verizon has received such payment. A Sub-Loop Distribution Facility Interconnection Application shall be deemed to have been withdrawn if Bandwidth breaches its payment obligation under this Section. Upon Verizon's completion of the work that Verizon must perform to provide Bandwidth with access to a Sub-Loop Distribution Facility, Verizon shall bill Bandwidth, and Bandwidth shall pay to Verizon, the balance of the cost set forth in the Sub-Loop Distribution Facility Interconnection Cost Statement for such access.
- 6.1.7 After Verizon has completed the installation of the interconnecting cable to a Bandwidth TOPIC and Bandwidth has paid the full cost of such installation, Bandwidth can request the connection of Verizon Sub-Loop Distribution Facilities to the Bandwidth TOPIC. At the same time, Bandwidth shall advise Verizon of the services that Bandwidth plans to provide over the Sub-Loop Distribution Facility, request any conditioning of the Sub-Loop Distribution Facility and assign the pairs in the interconnecting cable. Bandwidth shall run any crosswires within the TOPIC.
- 6.1.8 If Bandwidth requests that Verizon reactivate an unused drop and NID, then Bandwidth shall provide dial tone (or its DSL equivalent) on the Bandwidth side of the applicable Verizon FDI at least twenty-four (24) hours before the due date. On the due date, a Verizon technician will run the appropriate cross connection to connect the Verizon Sub-Loop Distribution Facility to the Bandwidth dial tone or equivalent from the TOPIC. If Bandwidth requests that Verizon provide Bandwidth with access to a Sub-Loop Distribution Facility that, at the time of Bandwidth's request, Verizon is using to provide service to a Customer, then, after Bandwidth has looped two interconnecting pairs through the TOPIC and at least twenty four (24) hours before the due date, a Verizon technician shall crosswire the dial tone from the Verizon central office through the Verizon side of the TOPIC and back out again to the Verizon FDI and Verizon Sub-Loop Distribution Facility using the "loop through" approach. On the due date, Bandwidth shall disconnect Verizon's dial tone, crosswire its dial tone to the Sub-Loop Distribution Facility and submit Bandwidth's LNP request.
- 6.1.9 Verizon will not provide access to a Sub-Loop Distribution Facility if Verizon is using the loop of which the Sub-Loop Distribution Facility is

a part to provide line sharing service to another CLEC or a service that uses derived channel technology to a Customer unless such other CLEC first terminates the Verizon-provided line sharing or such Customer first disconnects the service that utilizes derived channel technology.

- 6.1.10 Verizon shall provide Bandwidth with access to a Sub-Loop Distribution Facility in accordance with negotiated intervals
- 6.1.11 Verizon shall repair and maintain a Sub-Loop Distribution Facility at the request of Bandwidth and subject to the time and material rates set forth in Pricing Attachment and the rates, terms and conditions of Verizon's applicable Tariffs. Bandwidth accepts responsibility for initial trouble isolation for Sub-Loop Distribution Facilities and providing Verizon with appropriate dispatch information based on its test results. If (a) Bandwidth reports to Verizon a Customer trouble, (b) Bandwidth requests a dispatch, (c) Verizon dispatches a technician, and (d) such trouble was not caused by Verizon Sub-Loop Distribution Facility facilities or equipment in whole or in part, Bandwidth shall pay Verizon the charges set forth in the Pricing Attachment and Verizon's applicable Tariffs for time associated with said dispatch. In addition, these charges also apply when the Customer contact as designated by Bandwidth is not available at the appointed time. If as the result of Bandwidth instructions, Verizon is erroneously requested to dispatch to a site on Verizon company premises ("dispatch in"), the charges set forth in Pricing Attachment and Verizon's applicable Tariffs will be assessed per occurrence to Bandwidth by Verizon. If as the result of Bandwidth instructions, Verizon is erroneously requested to dispatch to a site outside of Verizon company premises ("dispatch out"), the charges set forth in Pricing Attachment and Verizon's applicable Tariffs will be assessed per occurrence to Bandwidth by Verizon.

6.2 [Intentionally Left Blank].

6.3 Collocation in Remote Terminals.

To the extent required by Applicable Law, Verizon shall allow Bandwidth to collocate equipment in a Verizon remote terminal equipment enclosure in accordance with, and subject to, the rates, terms and conditions set forth in the Collocation Attachment and the Pricing Attachment.

7. Sub-Loop for Multiunit Tenant Premises Access

[Intentionally Left Blank].

8. Dark Fiber Transport and Transitional Provision of Embedded Dark Fiber Loops

- 8.1 Subject to the conditions set forth in Section 1 of this Attachment and upon request by Bandwidth, Verizon shall provide Bandwidth with access to unbundled Dark Fiber Transport in accordance with, and subject to, the rates, terms and conditions provided in the Pricing Attachment and rates, terms and conditions of Verizon's applicable Tariffs. Verizon shall not be required to provide, and Bandwidth shall not request or obtain, unbundled access to any dark fiber facility that does not meet the definition of Dark Fiber Transport (except to the extent Verizon is required to provide Bandwidth with unbundled access to Bandwidth's embedded base of Dark Fiber Loops under Section 8.3 below). For the avoidance of any doubt, notwithstanding any other provision of this Agreement, a

Verizon Tariff, or otherwise, Verizon shall not be required to provide, and Bandwidth shall not request or obtain, Dark Fiber Transport that does not connect a pair of Verizon UNE Wire Centers. Access to unbundled Dark Fiber Transport will be provided by Verizon only where existing facilities are available except as provided in Section 17 below. Access to Dark Fiber Transport will be provided in accordance with, but only to the extent required by, the Federal Unbundling Rules. Dark Fiber Transport consists of Verizon optical transmission facilities without attached multiplexers, aggregation or other electronics. To the extent Verizon's Dark Fiber Transport contains any lightwave repeaters (e.g., regenerators or optical amplifiers) installed thereon, Verizon shall not remove the same. Except as otherwise required by the Federal Unbundling Rules, the following terms and conditions apply to Verizon's Dark Fiber Transport offerings.

8.2 In addition to the other terms and conditions of this Agreement, the following terms and conditions shall apply to Dark Fiber Transport:

8.2.1 [Intentionally Left Blank].

8.2.2 Bandwidth may access Dark Fiber Transport only at a pre-existing Verizon accessible terminal of such Dark Fiber Transport, and Bandwidth may not access Dark Fiber Transport at any other point, including, but not limited to, a splice point or case. Dark Fiber Transport is not available to Bandwidth unless such Dark Transport is already terminated on an existing Verizon accessible terminal. Unused fibers located in a cable vault or a controlled environment vault, manhole or other location outside the Verizon UNE Wire Center, and not terminated to a fiber patch panel, are not available to Bandwidth.

8.2.3 Except if and, to the extent required by, the Federal Unbundling Rules and Section 17 below, Verizon will not perform splicing (e.g., introduce additional splice points or open existing splice points or cases) to accommodate Bandwidth's request.

8.2.4 Verizon shall perform all work necessary to install a cross connect or a fiber jumper from a Verizon accessible terminal to a Bandwidth collocation arrangement.

8.2.5 A "Dark Fiber Inquiry Form" must be submitted prior to submitting an ASR. Upon receipt of Bandwidth's completed Dark Fiber Inquiry Form, Verizon will initiate a review of its cable records to determine whether Dark Fiber Transport may be available between the locations and in the quantities specified. Verizon will respond within fifteen (15) Business Days from receipt of the Bandwidth's Dark Fiber Inquiry Form, indicating whether Dark Fiber Transport may be available (if so available, an "Acknowledgement") based on the records search except that for voluminous requests or large, complex projects, Verizon reserves the right to negotiate a different interval. The Dark Fiber Inquiry is a record search and does not guarantee the availability of Dark Fiber Transport. Where a direct Dark Fiber Transport route is not available, Verizon will provide, where available, Dark Fiber Transport via a reasonable indirect route that passes through intermediate Verizon Central Offices at the rates set forth in the Pricing Attachment. In cases where Verizon provides Dark Fiber Transport via an indirect route as described in this section, Bandwidth shall not be permitted to access the Dark Fiber Transport at any intermediate central office between the two Verizon central offices that are the end points of the

route. In no event shall Verizon be required to provide Dark Fiber Transport between two central offices that are the end points of a route on which Verizon is not required under the Federal Unbundling Rules to provide Dark Fiber Transport to Bandwidth. Verizon reserves the right to limit the number of intermediate Verizon Central Offices on an indirect route consistent with limitations in Verizon's network design and/or prevailing industry practices for optical transmission applications. Any limitations on the number of intermediate Verizon Central Offices will be discussed with Bandwidth. If access to Dark Fiber Transport is not available, Verizon will notify Bandwidth, within fifteen (15) Business Days, that no spare Dark Fiber Transport is available over the direct route nor any reasonable alternate indirect route, except that for voluminous requests or large, complex projects, Verizon reserves the right to negotiate a different interval. Where no available route was found during the record review, Verizon will identify the first blocked segment on each alternate indirect route and which segment(s) in the alternate indirect route are available prior to encountering a blockage on that route, at the rates set forth in the Pricing Attachment.

- 8.2.5.1 Bandwidth shall indicate on the Dark Fiber Inquiry Form whether the available Dark Fiber should be reserved, at the rates set forth in the Pricing Attachment, pending receipt of an order for the Dark Fiber.
- 8.2.5.2 Upon request from Bandwidth as indicated on the Dark Fiber Inquiry Form, Verizon shall hold such requested Dark Fiber Transport for Bandwidth's use for ten (10) Business Days from Bandwidth's receipt of Acknowledgement and may not allow any other party (including Verizon) to use such fiber during that time period.
- 8.2.5.3 Bandwidth shall submit an order for the reserved Dark Fiber Transport as soon as possible using the standard ordering process or parallel provisioning process as described in Section 8.2.5.5. The standard ordering process shall be used when Bandwidth does not have additional requirements for collocation. The parallel provisioning process shall be used when Bandwidth requires new collocation facilities or changes to existing collocation arrangements.
- 8.2.5.4 If no order is received from Bandwidth for the reserved Dark Fiber Transport within ten (10) Business Days from Bandwidth's receipt of Acknowledgement, Verizon shall return to spare the reserved Dark Fiber Transport that Verizon previously notified Bandwidth are available. Should Bandwidth submit an order to Verizon after the ten (10) Business Day reservation period for access to Dark Fiber Transport that Verizon has previously notified Bandwidth was available, Bandwidth assumes all risk that such Dark Fiber Transport will no longer be available.
- 8.2.5.5 Upon Bandwidth's request, the Parties will conduct parallel provisioning of collocation and Dark Fiber Transport in accordance with the following terms and conditions:

- 8.2.5.5.1 Bandwidth will use existing interfaces and Verizon's current applications and order forms to request collocation and Dark Fiber Transport.
- 8.2.5.5.2 Verizon will parallel process Bandwidth's requests for collocation, including augments, and Dark Fiber Transport.
- 8.2.5.5.3 Before Bandwidth submits a request for parallel provisioning of collocation and Dark Fiber Transport, Bandwidth will:
 - 8.2.5.5.3.1 submit a Dark Fiber Inquiry Form and receive an Acknowledgement from Verizon; and
 - 8.2.5.5.3.2 submit a collocation application for the Verizon Central Office(s) where the Dark Fiber Transport terminates and receive confirmation from Verizon that Bandwidth's collocation application has been accepted.
- 8.2.5.5.4 Bandwidth will prepare requests for parallel provisioning of collocation and Dark Fiber Transport in the manner and form reasonably specified by Verizon.
- 8.2.5.5.5 If Verizon rejects Bandwidth's Dark Fiber Transport request, Bandwidth may cancel its collocation application within five (5) Business Days of such rejection and receive a refund of the collocation application fee paid by Bandwidth, less the costs Verizon incurred to date.
- 8.2.5.5.6 If Verizon accepts Bandwidth's Dark Fiber Transport request, Verizon will parallel provision the Dark Transport to a temporary location in Verizon's Central Office(s). Verizon will charge and Bandwidth will pay for parallel provisioning of such Dark Fiber Transport at the rates specified in the Pricing Attachment beginning on the date that Verizon accepts each Dark Fiber Transport request.
- 8.2.5.5.7 Within ten (10) days after Verizon completes a Bandwidth collocation application, Bandwidth shall submit a Dark Fiber change request to reposition Dark Fiber Transport from the temporary location in that Verizon Central Office(s) to the permanent location at Bandwidth's collocation arrangement in such Verizon Central Office(s). Bandwidth will prepare such request(s) in the manner and form specified by Verizon.

- 8.2.5.5.8 If Bandwidth cancels its collocation application, Bandwidth must also submit a cancellation for the unbundled Dark Fiber Transport provisioned to the temporary location in the Verizon Central Office(s).
- 8.2.6 Bandwidth shall order Dark Fiber Transport by sending to Verizon a separate ASR for each A to Z route.
- 8.2.7 Where a collocation arrangement can be accomplished in a Verizon premises, access to Dark Fiber Transport that terminates in a Verizon premises must be accomplished via a collocation arrangement in that Verizon premises. In circumstances where a collocation arrangement cannot be accomplished in a Verizon premises, the Parties agree to negotiate for possible alternative arrangements.
- 8.2.8 Except as provided in Section 17 below, Dark Fiber Transport will be offered to Bandwidth in the condition that it is available in Verizon's network at the time that Bandwidth submits its request (i.e., "as is"). In addition, Verizon shall not be required to convert lit fiber to Dark Fiber Transport for Bandwidth's use.
- 8.2.9 Spare wavelengths on fiber strands, where Wave Division Multiplexing (WDM) or Dense Wave Division Multiplexing (DWDM) equipment is deployed, are not considered to be Dark Fiber Transport, and, therefore, will not be offered to Bandwidth as Dark Fiber Transport.
- 8.2.10 Fiber that has been assigned to fulfill a Customer order for maintenance purposes or for Verizon's lit fiber optic systems will not be offered to Bandwidth as Dark Fiber Transport.
- 8.2.11 Bandwidth shall be responsible for providing all transmission, terminating and lightwave repeater equipment necessary to light and use Dark Fiber Transport.
- 8.2.12 Bandwidth may not resell Dark Fiber Transport, purchased pursuant to this Agreement to third parties.
- 8.2.13 Except to the extent that Verizon is required by the Federal Unbundling Rules to provide Dark Fiber Transport to Bandwidth for use for Special or Switched Exchange Access Services, Bandwidth shall not use Dark Fiber Transport, for Special or Switched Exchange Access Services.
- 8.2.14 In order to preserve the efficiency of its network, Verizon may, upon a showing of need to the Commission, limit Bandwidth to leasing up to a maximum of twenty-five percent (25%) of the Dark Fiber Transport in any given segment of Verizon's network. In addition, except as otherwise required by the Federal Unbundling Rules, Verizon may take any of the following actions, notwithstanding anything to the contrary in this Agreement:
- 8.2.14.1 Revoke Dark Fiber Transport leased to Bandwidth upon a showing of need to the Commission and twelve (12) months' advance written notice to Bandwidth; and

- 8.2.14.2 Verizon reserves and shall not waive, Verizon's right to claim before the Commission that Verizon should not have to fulfill a Bandwidth order for Dark Transport because that request would strand an unreasonable amount of fiber capacity, disrupt or degrade service to Customers or carriers other than Bandwidth, or impair Verizon's ability to meet a legal obligation.
- 8.2.15 Except as expressly set forth in this Agreement, Bandwidth may not reserve Dark Fiber Transport.
- 8.2.16 Bandwidth shall be solely responsible for: (a) determining whether or not the transmission characteristics of the Dark Fiber Transport accommodate the requirements of Bandwidth; (b) obtaining any Rights of Way, governmental or private property permit, easement or other authorization or approval required for access to the Dark Fiber Transport; (c) installation of fiber optic transmission equipment needed to power the Dark Fiber Transport to transmit permitted traffic; and (d) except as set forth with respect to the parallel provisioning process addressed above, Bandwidth's collocation arrangements with any proper optical cross connects or other equipment that Bandwidth needs to access Dark Fiber Transport before it submits an order for such access. Bandwidth hereby represents and warrants that it shall have all such rights of way, authorizations and the like applicable to the location at which it wishes to establish a demarcation point for Dark Fiber Transport, on or before the date that Bandwidth places an order for the applicable Dark Fiber Transport, and that it shall maintain the same going forward.
- 8.2.17 Bandwidth is responsible for trouble isolation before reporting trouble to Verizon. Verizon will restore continuity to Dark Fiber Transport that has been broken. Verizon will not repair Dark Fiber Transport that is capable of transmitting light, even if the transmission characteristics of the Dark Fiber Transport has changed.
- 8.2.18 [Intentionally Left Blank].
- 8.2.19 Bandwidth may request the following, which shall be provided on a time and materials basis (as set forth in the Pricing Attachment):
- 8.2.19.1 [Intentionally Left Blank].
- 8.2.19.2 A field survey that shows the availability of Dark Fiber Transport between two or more Verizon Central Offices, shows whether or not such Dark Fiber Transport is defective, shows whether or not such Dark Fiber Transport has been used by Verizon for emergency restoration activity, and tests the transmission characteristics of Verizon's Dark Fiber Transport. If a field survey shows that Dark Fiber Transport is available, Bandwidth may reserve the Dark Fiber Transport, as applicable, for ten (10) Business Days from receipt of Verizon's field survey results. If Bandwidth submits an order for access to such Dark Fiber Transport after passage of the foregoing ten (10) Business Day reservation period, Verizon does not guarantee or warrant the Dark Fiber Transport will be available when Verizon receives such order, and Bandwidth assumes all

risk that the Dark Fiber Transport will not be available. Verizon shall perform a field survey subject to a negotiated interval. If a Bandwidth submits an order for Dark Fiber Transport without first obtaining the results of a field survey of such Dark Fiber Transport, Bandwidth assumes all risk that the Dark Fiber Transport will not be compatible with Bandwidth's equipment, including, but not limited to, order cancellation charges.

8.3 Transitional Provision of Embedded Dark Fiber Loops.

Notwithstanding any other provision of this Agreement, Verizon is not required to provide, and Bandwidth may not obtain, unbundled access to any Dark Fiber Loop; provided, however, that if Bandwidth leased a Dark Fiber Loop from Verizon as of March 11, 2005, Bandwidth may continue to lease that Dark Fiber Loop at transitional rates provided for in the TRRO until September 10, 2006, and not beyond that date. The Parties acknowledge that Verizon, prior to the Effective Date, has provided Bandwidth with any required notices of discontinuance of Dark Fiber Loops, and that no further notice is required for Verizon to exercise its rights with respect to discontinuance of Dark Fiber Loops.

9. Network Interface Device

- 9.1 Subject to the conditions set forth in Section 1 of this Attachment and upon request by Bandwidth, Verizon shall permit Bandwidth to connect a Bandwidth Loop to the Inside Wiring of a Customer's premises through the use of a Verizon NID in accordance with this Section 9 and the rates and charges provided in the Pricing Attachment. Verizon shall provide Bandwidth with access to NIDs in accordance with, but only to the extent required by, the Federal Unbundling Rules. Bandwidth may access a Verizon NID either by means of a connection (but only if the use of such connection is technically feasible) from an adjoining Bandwidth NID deployed by Bandwidth or, if an entrance module is available in the Verizon NID, by connecting a Bandwidth Loop to the Verizon NID. When necessary, Verizon will rearrange its facilities to provide access to an existing Customer's Inside Wire. An entrance module is available only if facilities are not connected to it.
- 9.2 In no case shall Bandwidth access, remove, disconnect or in any other way rearrange Verizon's Loop facilities from Verizon's NIDs, enclosures, or protectors.
- 9.3 In no case shall Bandwidth access, remove, disconnect or in any other way rearrange, a Customer's Inside Wiring from Verizon's NIDs, enclosures, or protectors where such Customer Inside Wiring is used in the provision of ongoing Telecommunications Service to that Customer.
- 9.4 In no case shall Bandwidth remove or disconnect ground wires from Verizon's NIDs, enclosures, or protectors.
- 9.5 In no case shall Bandwidth remove or disconnect NID modules, protectors, or terminals from Verizon's NID enclosures.
- 9.6 Maintenance and control of premises Inside Wiring is the responsibility of the Customer. Any conflicts between service providers for access to the Customer's Inside Wiring must be resolved by the person who controls use of the wiring (e.g., the Customer).

- 9.7 When Bandwidth is connecting a Bandwidth-provided Loop to the Inside Wiring of a Customer's premises through the Customer's side of the Verizon NID, Bandwidth does not need to submit a request to Verizon and Verizon shall not charge Bandwidth for access to the Verizon NID. In such instances, Bandwidth shall comply with the provisions of Sections 9.2 through 9.7 of this Attachment and shall access the Customer's Inside Wire in the manner set forth in Section 9.8 of this Attachment.
- 9.8 Due to the wide variety of NIDs utilized by Verizon (based on Customer size and environmental considerations), Bandwidth may access the Customer's Inside Wiring, acting as the agent of the Customer by any of the following means:
- 9.8.1 Where an adequate length of Inside Wiring is present and environmental conditions permit, Bandwidth may remove the Inside Wiring from the Customer's side of the Verizon NID and connect that Inside Wiring to Bandwidth's NID.
- 9.8.2 Where an adequate length of Inside Wiring is not present or environmental conditions do not permit, Bandwidth may enter the Customer side of the Verizon NID enclosure for the purpose of removing the Inside Wiring from the terminals of Verizon's NID and connecting a connectorized or spliced jumper wire from a suitable "punch out" hole of such NID enclosure to the Inside Wiring within the space of the Customer side of the Verizon NID. Such connection shall be electrically insulated and shall not make any contact with the connection points or terminals within the Customer side of the Verizon NID.
- 9.8.3 Bandwidth may request Verizon to make other rearrangements to the Inside Wiring terminations or terminal enclosure on a time and materials cost basis to be charged to the requesting party (i.e. Bandwidth, its agent, the building owner or the Customer). If Bandwidth accesses the Customer's Inside Wiring as described in this Section 9.8.3, time and materials charges will be billed to the requesting party (i.e. Bandwidth, its agent, the building owner or the Customer).

10. [This Section Intentionally Left Blank]

11. Dedicated Transport

- 11.1 Subject to the conditions set forth in Section 1 of this Attachment, where facilities are available, at Bandwidth's request, Verizon shall provide Bandwidth with Dedicated Transport unbundled from other Network Elements at the rates set forth in the Pricing Attachment. Verizon shall provide Bandwidth with such Dedicated Transport in accordance with, but only to the extent required by, the Federal Unbundling Rules. Except as provided in Section 17 below, Verizon will not install new electronics, and Verizon will not build new facilities. For the avoidance of any doubt, notwithstanding any other provision of this Agreement, Verizon shall not be required to provide, and Bandwidth shall not request or obtain, unbundled access to shared (or common) transport, or any other interoffice transport facility that does not meet the definition of Dedicated Transport.
- 11.2 If and, to the extent that, Bandwidth has purchased (or purchases) transport from Verizon under a Verizon Tariff or otherwise, and Bandwidth has a right under the Federal Unbundling Rules to convert (and wishes to convert) such transport to

unbundled Dedicated Transport under this Agreement, it shall give Verizon written notice of such request (including, without limitation, through submission of ASRs if Verizon so requests) and provide to Verizon all information (including, without limitation, a listing of the specific circuits in question) that Verizon reasonably requires to effectuate such conversion. In the case of any such conversion, Bandwidth shall pay any and all conversion charges (e.g., non-recurring charges), as well as any and all termination liabilities, minimum service period charges and like charges in accordance with Verizon's applicable Tariffs. If the transport to be converted comprises a portion of a High Capacity EEL (as defined in Section 16.2.1 below), the applicable provisions of Section 16 below shall apply.

12. [This Section Intentionally Left Blank]

13. Operations Support Systems

Subject to the conditions set forth in Section 1 of this Attachment and in Section 8 of the Additional Services Attachment, Verizon shall provide Bandwidth with access via electronic interfaces to databases required for pre-ordering, ordering, provisioning, maintenance and repair, and billing. Verizon shall provide Bandwidth with such access in accordance with, but only to the extent required by, the Federal Unbundling Rules. All such transactions shall be submitted by Bandwidth through such electronic interfaces.

14. Availability of Other Network Elements on an Unbundled Basis

- 14.1 Any request by Bandwidth for access to a Verizon Network Element that is not already available and that Verizon is required by the Federal Unbundling Rules to provide on an unbundled basis shall be treated as a Network Element Bona Fide Request pursuant to Section 14.3, of this Attachment. Bandwidth shall provide Verizon access to its Network Elements as mutually agreed by the Parties or as required by the Federal Unbundling Rules.
- 14.2 Notwithstanding anything to the contrary in this Section 14, a Party shall not be required to provide a proprietary Network Element to the other Party under this Section 14 except as required by the Federal Unbundling Rules.
- 14.3 Network Element Bona Fide Request (BFR).
 - 14.3.1 Each Party shall promptly consider and analyze access to a new unbundled Network Element in response to the submission of a Network Element Bona Fide Request by the other Party hereunder. The Network Element Bona Fide Request process set forth herein does not apply to those services requested pursuant to Report & Order and Notice of Proposed Rulemaking 91-141 (rel. Oct. 19, 1992) ¶ 259 and n.603 or subsequent orders.
 - 14.3.2 A Network Element Bona Fide Request shall be submitted in writing and shall include a technical description of each requested Network Element.
 - 14.3.3 The requesting Party may cancel a Network Element Bona Fide Request at any time, but shall pay the other Party's reasonable and demonstrable costs of processing and/or implementing the Network Element Bona Fide Request up to the date of cancellation.
 - 14.3.4 Within ten (10) Business Days of its receipt, the receiving Party shall acknowledge receipt of the Network Element Bona Fide Request.

- 14.3.5 Except under extraordinary circumstances, within thirty (30) days of its receipt of a Network Element Bona Fide Request, the receiving Party shall provide to the requesting Party a preliminary analysis of such Network Element Bona Fide Request. The preliminary analysis shall confirm that the receiving Party will offer access to the Network Element or will provide a detailed explanation that access to the Network Element is not technically feasible and/or that the request does not qualify as a Network Element that is required to be provided by the Federal Unbundling Rules.
- 14.3.6 If the receiving Party determines that the Network Element Bona Fide Request is technically feasible and access to the Network Element is required to be provided by the Federal Unbundling Rules, it shall promptly proceed with developing the Network Element Bona Fide Request upon receipt of written authorization from the requesting Party. When it receives such authorization, the receiving Party shall promptly develop the requested services, determine their availability, calculate the applicable prices and establish installation intervals. Unless the Parties otherwise agree, the Network Element requested must be priced in accordance with Section 252(d)(1) of the Act.
- 14.3.7 As soon as feasible, but not more than ninety (90) days after its receipt of authorization to proceed with developing the Network Element Bona Fide Request, the receiving Party shall provide to the requesting Party a Network Element Bona Fide Request quote which will include, at a minimum, a description of each Network Element, the availability, the applicable rates, and the installation intervals.
- 14.3.8 Within thirty (30) days of its receipt of the Network Element Bona Fide Request quote, the requesting Party must either confirm its order for the Network Element Bona Fide Request pursuant to the Network Element Bona Fide Request quote or seek arbitration by the Commission pursuant to Section 252 of the Act.
- 14.3.9 If a Party to a Network Element Bona Fide Request believes that the other Party is not requesting, negotiating or processing the Network Element Bona Fide Request in good faith, or disputes a determination, or price or cost quote, or is failing to act in accordance with Section 251 of the Act, such Party may seek mediation or arbitration by the Commission pursuant to Section 252 of the Act.

15. Maintenance of Network Elements

If (a) Bandwidth reports to Verizon a Customer trouble, (b) Bandwidth requests a dispatch, (c) Verizon dispatches a technician, and (d) such trouble was not caused by Verizon's facilities or equipment in whole or in part, then Bandwidth shall pay Verizon a charge set forth in the Pricing Attachment for time associated with said dispatch. In addition, this charge also applies when the Customer contact as designated by Bandwidth is not available at the appointed time. Bandwidth accepts responsibility for initial trouble isolation and providing Verizon with appropriate dispatch information based on its test results. If, as the result of Bandwidth instructions, Verizon is erroneously requested to dispatch to a site on Verizon company premises ("dispatch in"), a charge set forth in the Pricing Attachment will be assessed per occurrence to Bandwidth by Verizon. If as the result of Bandwidth instructions, Verizon is erroneously requested to dispatch to a site outside of Verizon company premises ("dispatch out"), a charge set forth in the Pricing Attachment will be assessed per occurrence to Bandwidth by Verizon. Verizon agrees to respond to Bandwidth trouble reports on a non-discriminatory basis consistent

with the manner in which it provides service to its own retail Customers or to any other similarly situated Telecommunications Carrier.

16. Combinations, Commingling, and Conversions

16.1 Subject to and without limiting the conditions set forth in Section 1 of this Attachment:

16.1.1 Verizon will not prohibit the commingling of a Qualifying UNE with Qualifying Wholesale Services, but only to the extent and so long as commingling and provision of such Network Element (or combination of Network Elements) is required by the Federal Unbundling Rules. Moreover, to the extent and so long as required by the Federal Unbundling Rules, Verizon shall, upon request of Bandwidth, perform the functions necessary to commingle Qualifying UNEs with Qualifying Wholesale Services. The rates, terms and conditions of the applicable access Tariff or separate non-251 agreement will apply to the Qualifying Wholesale Services, and the rates, terms and conditions of the Agreement or the Verizon UNE Tariff, as applicable, will apply to the Qualifying UNEs; provided, however, that a nonrecurring charge will apply for each UNE circuit that is part of a commingled arrangement, as set forth in the Pricing Attachment. In addition, if any commingling requested by Bandwidth requires Verizon to perform physical work that Verizon is required to perform under the Federal Unbundling Rules, then Verizon's standard charges for such work shall apply or, in the absence of a standard charge, a fee calculated using Verizon's standard time and materials rates shall apply until such time as a standard charge is established pursuant to the terms set forth in the Pricing Attachment.

16.1.2 Ratcheting, i.e., a pricing mechanism that involves billing a single circuit at multiple rates to develop a single, blended rate, shall not be required. UNEs that are commingled with Wholesale Services are not included in the shared use provisions of the applicable Tariff, and are therefore not eligible for adjustment of charges under such provisions. Verizon may exclude its performance in connection with the provisioning of commingled facilities and services from standard provisioning intervals and from performance measures and remedies, if any, contained in the Agreement or elsewhere.

16.1.3 Limitation on Section 16.1. Section 16.1 is intended only to address the Parties' rights and obligations as to combining and/or commingling of UNEs that Verizon is already required to provide to Bandwidth under the Agreement and the Federal Unbundling Rules. Nothing contained in Section 16.1 shall be deemed to limit any right of Verizon under the Agreement to cease providing a facility that is or becomes a Discontinued Facility.

16.2 Service Eligibility Criteria for Certain Combinations and Commingled Facilities and Services. Subject to the conditions set forth in Sections 1 and 16.1 of this Attachment:

16.2.1 Verizon shall not be obligated to provide:

16.2.1.1 an unbundled DS1 Loop in combination with unbundled DS1 or DS3 Dedicated Transport, or commingled with DS1 or DS3 access services;

- 16.2.1.2 an unbundled DS3 Loop in combination with unbundled DS3 Dedicated Transport, or commingled with DS3 access services;
- 16.2.1.3 unbundled DS1 Dedicated Transport commingled with DS1 channel termination access service;
- 16.2.1.4 unbundled DS3 Dedicated Transport commingled with DS1 channel termination access service; or
- 16.2.1.5 unbundled DS3 Dedicated Transport commingled with DS3 channel termination service,

(individually and collectively "High Capacity EELs") except to the extent Verizon is required by the Federal Unbundling Rules to do so, and then not unless and until Bandwidth, using an ASR, certifies to Verizon that each combined or commingled DS1 circuit or DS1 equivalent circuit of a High Capacity EEL satisfies each of the service eligibility criteria on a circuit-by-circuit basis as set forth in 47 C.F.R. § 51.318. Bandwidth must remain in compliance with said service eligibility criteria for so long as Bandwidth continues to receive the aforementioned combined or commingled facilities and/or services from Verizon and Bandwidth shall immediately notify Verizon at such time as a certification ceases to be accurate. The service eligibility criteria shall be applied to each combined or commingled DS1 circuit or DS1 equivalent circuit of a High Capacity EEL. If any combined or commingled DS1 circuit or DS1 equivalent circuit of a High Capacity EEL is, becomes, or is subsequently determined to be, noncompliant, the noncompliant High Capacity EEL circuit will be treated as described in Section 16.2.2 below. The foregoing shall apply whether the High Capacity EEL circuits in question are being provisioned to establish a new circuit or to convert an existing wholesale service, or any part thereof, to unbundled network elements. For existing High Capacity EEL circuits, Bandwidth, within thirty (30) days of the Effective Date to the extent it has not already done so prior to the Effective Date of this Agreement, must re-certify, using an ASR, that each DS1 circuit or DS1 equivalent circuit satisfies the service eligibility criteria on a circuit-by-circuit basis as set forth in 47 C.F.R. § 51.318. Any existing High Capacity EEL circuits that Bandwidth leased from Verizon as of the Effective Date of this Agreement that Bandwidth fails to re-certify as required by this Section by the end of such 30-day period shall be treated as a non-compliant circuit as described under Section 16.2.2 below effective as of the Effective Date of this Agreement.

- 16.2.2 Without limiting any other right Verizon may have to cease providing circuits that are or become Discontinued Facilities, if a High Capacity EEL circuit is or becomes noncompliant as described in this Section 16.2 and Bandwidth has not submitted an LSR or ASR, as appropriate, to Verizon requesting disconnection of the noncompliant facility and has not separately secured from Verizon an alternative arrangement to replace the noncompliant High Capacity EEL circuit, then Verizon, to the extent it has not already done so prior to execution of this Agreement, shall reprice the subject High Capacity EEL circuit (or portion thereof that had been previously billed at UNE rates), effective beginning on the date on which the circuit became non-compliant by application of a new rate (or, in Verizon's sole discretion, by application of a surcharge to an existing rate) to be

equivalent to an analogous access service or other analogous arrangement that Verizon shall identify in a written notice to Bandwidth.

- 16.2.3 Each certification to be provided by Bandwidth pursuant to Section 16.2.1 above must contain the following information for each DS1 circuit or DS1 equivalent: (a) the local number assigned to each DS1 circuit or DS1 equivalent; (b) the local numbers assigned to each DS3 circuit (must have 28 local numbers assigned to it); (c) the date each circuit was established in the 911/E-911 database; (d) the collocation termination connecting facility assignment for each circuit, showing that the collocation arrangement was established pursuant to 47 U.S.C. § 251(c)(6), and not under a federal collocation tariff; (e) the interconnection trunk circuit identification number that serves each DS1 circuit. There must be one such identification number per every 24 DS1 circuits; and (f) the local switch that serves each DS1 circuit. When submitting an ASR for a circuit, this information must be contained in the Remarks section of the ASR, unless provisions are made to populate other fields on the ASR to capture this information.
- 16.2.4 The charges for conversions are as specified in the Pricing Attachment and apply for each circuit converted.
- 16.2.5 All ASR-driven conversion requests will result in a change in circuit identification (circuit ID) from access to UNE or UNE to access. If such change in circuit ID requires that the affected circuit(s) be retagged, then a retag fee per circuit will apply as specified in the Pricing Attachment.
- 16.2.6 All requests for conversions will be handled in accordance with Verizon's conversion guidelines. Each request will be handled as a project and will be excluded from all ordering and provisioning metrics.
- 16.3 Once per calendar year, Verizon may obtain and pay for an independent auditor to audit Bandwidth's compliance in all material respects with the service eligibility criteria applicable to High Capacity EELs. Any such audit shall be performed in accordance with the standards established by the American Institute for Certified Public Accountants, and may include, at Verizon's discretion, the examination of a sample selected in accordance with the independent auditor's judgment. To the extent the independent auditor's report concludes that Bandwidth failed to comply with the service eligibility criteria, then (without limiting Verizon's rights under Section 16.2.2 above) Bandwidth must convert all noncompliant circuits to the appropriate service, true up any difference in payments, make the correct payments on a going-forward basis, and reimburse Verizon for the cost of the independent auditor within thirty (30) days after receiving a statement of such costs from Verizon. Should the independent auditor confirm Bandwidth's compliance with the service eligibility criteria, then Bandwidth shall provide to the independent auditor for its verification a statement of Bandwidth's out-of-pocket costs of complying with any requests of the independent auditor, and Verizon shall, within thirty (30) days of the date on which Bandwidth submits such costs to the auditor, reimburse Bandwidth for its out-of-pocket costs verified by the auditor. Bandwidth shall maintain records adequate to support its compliance with the service eligibility criteria for each DS1 or DS1 equivalent circuit for at least eighteen (18) months after the service arrangement in question is terminated.

17. Routine Network Modifications

- 17.1 General Conditions. In accordance with, but only to the extent required by, the Federal Unbundling Rules, and subject to the conditions set forth in Section 1 of this Attachment:
- 17.1.1 Verizon shall make such routine network modifications, at the rates and charges set forth in the Pricing Attachment, as are necessary to permit access by Bandwidth to the Loop, Dedicated Transport, or Dark Fiber Transport facilities available under the Agreement (including DS1 Loops and DS1 Dedicated Transport, and DS3 Loops and DS3 Dedicated Transport), where the facility has already been constructed. Routine network modifications applicable to Loops or Transport are those modifications that Verizon regularly undertakes for its own Customers and may include, but are not limited to: rearranging or splicing of in-place cable at existing splice points; adding an equipment case; adding a doubler or repeater; installing a repeater shelf; deploying a new multiplexer or reconfiguring an existing multiplexer; accessing manholes; and deploying bucket trucks to reach aerial cable. Routine network modifications applicable to Dark Fiber Transport are those modifications that Verizon regularly undertakes for its own Customers and may include, but are not limited to, splicing of in-place dark fiber at existing splice points; accessing manholes; deploying bucket trucks to reach aerial cable; and routine activities, if any, needed to enable Bandwidth to light a Dark Fiber Transport facility that it has obtained from Verizon under the Agreement. Verizon shall not be obligated to provide optronics for the purpose of lighting Dark Fiber Transport. Routine network modifications do not include the construction of a new Loop or new Transport facilities, trenching, the pulling of cable, the installation of new aerial, buried, or underground cable for a requesting telecommunications carrier, the placement of new cable, securing permits or rights-of-way, or constructing and/or placing new manholes or conduits. Verizon shall not be required to build any time division multiplexing (TDM) capability into new packet-based networks or into existing packet-based networks that do not already have TDM capability. Verizon shall not be required to perform any routine network modifications to any facility that is or becomes a Discontinued Facility.
- 17.2 Performance Plans. Verizon may exclude its performance in connection with the provisioning of Loops or Transport (including Dark Fiber Transport) for which routine network modifications are performed from standard provisioning intervals and performance measures and remedies, if any, contained in the Agreement or elsewhere.
- 17.3 Nothing contained in this Section 17 shall be deemed: (a) to establish any obligation of Verizon to provide on an unbundled basis under the Federal Unbundling Rules any facility that this Agreement does not otherwise require Verizon to provide on an unbundled basis under the Federal Unbundling Rules, (b) to obligate Verizon to provide on an unbundled basis under the Federal Unbundling Rules, for any period of time not required under the Federal Unbundling Rules, access to any Discontinued Facility, or (c) to limit any right of Verizon under the Agreement, any Verizon Tariff or SGAT, or otherwise, to cease providing a Discontinued Facility.

18. Rates and Charges

The rates and charges for UNEs, Combinations, Commingling, routine network modifications, and other services, facilities and arrangements, offered under this

Attachment shall be as provided in this Attachment and the Pricing Attachment.

19. Good Faith Performance

If and, to the extent that, Verizon, prior to the Effective Date of this Agreement, has not provided in the State of South Carolina a Service offered under this Attachment, Verizon reserves the right to negotiate in good faith with Bandwidth reasonable terms and conditions (including, without limitation, rates and implementation timeframes) for such Service; and, if the Parties cannot agree to such terms and conditions (including, without limitation, rates and implementation timeframes), either Party may utilize the Agreement's dispute resolution procedures.

COLLOCATION ATTACHMENT

1. Verizon's Provision of Collocation

Verizon shall provide to Bandwidth, in accordance with this Agreement, Verizon's applicable federal and state Tariffs and the requirements of Applicable Law, Collocation for the purpose of facilitating Bandwidth's interconnection with Verizon under 47 U.S.C. § 251(c)(2) or access to Unbundled Network Elements of Verizon; provided, that notwithstanding any other provision of this Agreement or a Tariff, Verizon shall be obligated to provide Collocation to Bandwidth only to the extent required by Applicable Law and may decline to provide Collocation to Bandwidth to the extent that provision of Collocation is not required by Applicable Law. Notwithstanding any other provision of this Agreement or a Tariff, nothing in this Agreement or a Tariff shall be deemed to require Verizon to provide (and, for the avoidance of any doubt, Verizon may decline to provide and/or cease providing) Collocation that, if provided by Verizon, would be used by Bandwidth to obtain unbundled access to any network element: (a) that Verizon is not required to unbundle under 47 U.S.C. § 251(c)(3) or (b) that Verizon is not required to unbundle under 47 C.F.R. Part 51.

911 ATTACHMENT

1. 911/E-911 Arrangements

- 1.1 911/E-911 arrangements provide a caller access to the appropriate PSAP by dialing a 3-digit universal telephone number "911". Verizon provides and maintains such equipment and software at the 911/E-911 Tandem Office(s)/Selective Router(s), Verizon interface point(s) and ALI Database as is necessary for 911/E-911 Calls in areas where Verizon is the designated 911/E-911 Service Provider.
- 1.2 Verizon shall make the following information available to Bandwidth, to the extent permitted by Applicable Law. Such information is provided at the Verizon Partner Solutions website (formerly referred to as the Verizon wholesale website):
 - 1.2.1 a listing of the CLLI code (and SS7 point code when applicable) of each 911/E-911 Tandem Office(s)/Selective Router(s) and associated geographic location served for areas where Verizon is the designated 911/E-911 Service Provider;
 - 1.2.2 a listing of appropriate Verizon contact telephone numbers and organizations that currently have responsibility for operations and support of Verizon's 911/E-911 network and ALI Database systems; and
 - 1.2.3 where Verizon maintains a Master Street Address Guide (MSAG) on behalf of the Controlling 911 Authority, Verizon shall provide to Bandwidth a complete copy of such MSAG annually upon written request for each county within the LATA(s) in the State of South Carolina, where Bandwidth is providing Telephone Exchange Service, provided that Verizon is permitted to do so by Controlling 911 Authority.

2. ALI Database

- 2.1 Where Verizon manages the ALI Database, information regarding the ALI Database is provided electronically at the Verizon Partner Solutions website (formerly referred to as the Verizon wholesale website).
- 2.2 Where Verizon manages the ALI Database, Verizon will:
 - 2.2.1 store Bandwidth end user data provided by Bandwidth in the ALI Database;
 - 2.2.2 provide Bandwidth access to the ALI Database for the initial loading and updating of Bandwidth end user records in accordance with information contained in the Verizon Partner Solutions website (formerly referred to as the Verizon wholesale website); and
 - 2.2.3 provide Bandwidth an error and status report based on updates to the ALI Database received from Bandwidth.
- 2.3 Where Verizon manages the ALI Database, Bandwidth will:
 - 2.3.1 provide MSAG valid E-911 data for each of its end users for the initial loading of, and any and all updates to the ALI database;

- 2.3.2 utilize the appropriate Verizon electronic interface to update E-911 data in the ALI Database related its end users (and all such database information in the ALI Database shall conform to Verizon standards, which are provided at the Verizon Partner Solutions website (formerly referred to as the Verizon wholesale website));
 - 2.3.3 use its company ID on all end user records in accordance with NENA standards;
 - 2.3.4 correct any errors that occur during the entry of E-911 data in the ALI database; and
 - 2.3.5 enter E-911 data into the ALI Database in accordance with NENA standards for LNP. This includes, but is not limited to, using Bandwidth's NENA ID to lock and unlock records and the posting of the Bandwidth NENA ID to the ALI Database record where such locking and unlocking feature for E-911 records is available, or as defined by local standards. Bandwidth is required to promptly unlock and migrate its E-911 records in accordance with NENA standards. In the event that Bandwidth discontinues providing Telephone Exchange Service to any of its end users, it shall ensure that its E-911 records for such end users are unlocked in accordance with NENA standards.
- 2.4 In the event Bandwidth uses an Agent to input its end user's E-911 data to the ALI Database through the appropriate Verizon electronic interface, Bandwidth must provide a Letter of Authorization, in a form acceptable to Verizon, identifying and authorizing its Agent.

3. 911/E-911 Interconnection

- 3.1 Bandwidth may, in accordance with Applicable Law, interconnect to the Verizon 911/E-911 Tandem Office(s)/Selective Router(s) or Verizon interface point(s). Verizon will designate interface point(s), e.g., digital cross connect systems (DCS), where Bandwidth may interconnect with Verizon for the transmission and routing of 911/E-911 Calls to all subtending PSAPs that serve the areas in which Bandwidth provides Telephone Exchange Services.
- 3.2 In order to interconnect with Verizon for the transmission and routing of 911/E-911 Calls, Bandwidth shall:
 - 3.2.1 interconnect with each Verizon 911/E-911 Tandem Offices(s)/Selective Router(s) or Verizon interface points that serves the exchange areas in which Bandwidth is authorized to and will provide Telephone Exchange Service;
 - 3.2.2 provide a minimum of two (2) one-way outgoing 911/E-911 trunks over diversely routed facilities that are dedicated for originating 911/E-911 Calls from the Bandwidth switch to each designated Verizon 911/E-911 Tandem Office(s)/Selective Router(s) or Verizon interface point(s), using SS7 signaling where available, as necessary;
 - 3.2.3 [Intentionally Left Blank];
 - 3.2.4 provide sufficient trunks and facilities to route 911/E-911 Calls from Bandwidth to the designated Verizon 911/E-911 Tandem Office(s)/Selective Router(s) or Verizon interface point(s). Bandwidth

is responsible for requesting that trunks and facilities be routed diversely for 911/E-911 interconnection;

- 3.2.5 determine the proper quantity of trunks and facilities from its switch(es) to the Verizon 911/E-911 Tandem Office(s)/Selective Router(s) or Verizon interface point(s);
- 3.2.6 engineer its 911/E-911 trunks and facilities to attain a minimum P.01 grade of service as measured using the "busy day/busy hour" criteria or at such other minimum grade of service as required by Applicable Law or the Controlling 911 Authority;
- 3.2.7 monitor its 911/E-911 trunks and facilities for the purpose of determining originating network traffic volumes. If the Bandwidth traffic study indicates that additional trunks and/or facilities are needed to meet the current level of 911/E-911 Call volumes, Bandwidth shall order or otherwise provide adequate additional trunks and/or facilities;
- 3.2.8 promptly test all 911/E-911 trunks and facilities between the Bandwidth network and the Verizon 911/E-911 Tandem Office(s)/Selective Router(s) or Verizon interface point(s) to assure proper functioning of 911/E-911 arrangements. Bandwidth agrees that it will not transmit or route live 911/E-911 Calls until successful testing is completed; and
- 3.2.9 isolate, coordinate and restore all 911/E-911 network maintenance problems from its switch(es) to the Verizon 911/E-911 Tandem Office(s)/Selective Router(s) or Verizon interface points. Bandwidth will advise Verizon of the circuit identification when notifying Verizon of a failure or outage.

4. 911/E-911 General

- 4.1 Verizon and Bandwidth will work cooperatively to arrange meetings with the Controlling 911 Authorities to answer any technical questions the PSAPs, or county or municipal coordinators may have regarding the initial 911/E-911 arrangements
- 4.2 Bandwidth will compensate Verizon for provision of 911/E-911 Services pursuant to the Pricing Attachment of this Agreement.
- 4.3 Bandwidth and Verizon will comply with all Applicable Law (including 911 taxes and surcharges as defined by Applicable Law) pertaining to 911/E-911 arrangements.
- 4.4 Bandwidth will collect and remit, as required, any 911/E-911 applicable surcharges from its end users in accordance with Applicable Law.

5. Good Faith Performance

If and, to the extent that, Verizon, prior to the Effective Date, has not provided in the State of South Carolina a Service offered under this Attachment, Verizon reserves the right to negotiate in good faith with Bandwidth reasonable terms and conditions (including, without limitation, rates and implementation timeframes) for such Service; and, if the Parties cannot agree to such terms and conditions (including, without limitation, rates and implementation timeframes), either Party may utilize the Agreement's dispute resolution procedures.

PRICING ATTACHMENT

1. General

- 1.1 As used in this Attachment, the term "Charges" means the rates, fees, charges and prices for a Service.
- 1.2 Except as stated in Section 2 or Section 3 of this Attachment, Charges for Services shall be as stated in this Section 1.
- 1.3 The Charges for a Service shall be the Charges for the Service stated in the Providing Party's applicable Tariff.
- 1.4 In the absence of Charges for a Service established pursuant to Section 1.3 of this Attachment, the Charges shall be as stated in Appendix A of this Pricing Attachment. For rate elements provided in Appendix A of this Pricing Attachment that do not include a Charge, either marked as "TBD" or otherwise, Verizon is developing such Charges and has not finished developing such Charges as of the Effective Date of this Agreement ("Effective Date"). When Verizon finishes developing such a Charge, Verizon shall notify Bandwidth in writing of such Charge in accordance with, and subject to, the notices provisions of this Agreement and thereafter shall bill Bandwidth, and Bandwidth shall pay to Verizon, for Services provided under this Agreement on the Effective Date and thereafter in accordance with such Charge. Any notice provided by Verizon to Bandwidth pursuant to this Section 1.4 shall be deemed to be a part of Appendix A of this Pricing Attachment immediately after Verizon sends such notice to Bandwidth and thereafter.
- 1.5 The Charges stated in Appendix A of this Pricing Attachment shall be automatically superseded by any applicable Tariff Charges. The Charges stated in Appendix A of this Pricing Attachment also shall be automatically superseded by any new Charge(s) when such new Charge(s) are required by any order of the Commission or the FCC, approved by the Commission or the FCC, or otherwise allowed to go into effect by the Commission or the FCC (including, but not limited to, in a Tariff that has been filed with the Commission or the FCC), provided such new Charge(s) are not subject to a stay issued by any court of competent jurisdiction.
- 1.6 In the absence of Charges for a Service established pursuant to Sections 1.3 through 1.5 of this Attachment, if Charges for a Service are otherwise expressly provided for in this Agreement, such Charges shall apply.
- 1.7 In the absence of Charges for a Service established pursuant to Sections 1.3 through 1.6 of this Attachment, the Charges for the Service shall be the Providing Party's FCC or Commission approved Charges.
- 1.8 In the absence of Charges for a Service established pursuant to Sections 1.3 through 1.7 of this Attachment, the Charges for the Service shall be mutually agreed to by the Parties in writing.

2. Verizon Telecommunications Services Provided to Bandwidth for Resale Pursuant to the Resale Attachment

- 2.1 Verizon Telecommunications Services for which Verizon is Required to Provide a Wholesale Discount Pursuant to Section 251(c)(4) of the Act.

- 2.1.1 The Charges for a Verizon Telecommunications Service purchased by Bandwidth for resale for which Verizon is required to provide a wholesale discount pursuant to Section 251(c)(4) of the Act shall be the Retail Price for such Service set forth in Verizon's applicable Tariffs (or, if there is no Tariff Retail Price for such Service, Verizon's Retail Price for the Service that is generally offered to Verizon's Customers), less, to the extent required by Applicable Law: (a) the applicable wholesale discount stated in Verizon's Tariffs for Verizon Telecommunications Services purchased for resale pursuant to Section 251(c)(4) of the Act; or (b) in the absence of an applicable Verizon Tariff wholesale discount for Verizon Telecommunications Services purchased for resale pursuant to Section 251(c)(4) of the Act, the applicable wholesale discount stated in Appendix A for Verizon Telecommunications Services purchased for resale pursuant to Section 251(c)(4) of the Act.
- 2.1.2 The Charges for a Verizon Telecommunications Service Customer Specific Arrangement ("CSA") purchased by Bandwidth for resale pursuant to Section 3.3 of the Resale Attachment for which Verizon is required to provide a wholesale discount pursuant to Section 251(c)(4) of the Act shall be the Retail Price for the CSA, less, to the extent required by Applicable Law: (a) the applicable wholesale discount stated in Verizon's Tariffs for Verizon Telecommunications Services purchased for resale pursuant to Section 251(c)(4) of the Act; or (b) in the absence of an applicable Verizon Tariff wholesale discount for Verizon Telecommunications Services purchased for resale pursuant to Section 251(c)(4) of the Act, the applicable discount stated in Appendix A for Verizon Telecommunications Services purchased for resale pursuant to Section 251(c)(4) of the Act. Notwithstanding the foregoing, in accordance with, and to the extent permitted by Applicable Law, Verizon may establish a wholesale discount for a CSA that differs from the wholesale discount that is generally applicable to Telecommunications Services provided to Bandwidth for resale pursuant to Section 251(c)(4) of the Act.
- 2.1.3 Notwithstanding Sections 2.1 and 2.2 of this Attachment, in accordance with, and to the extent permitted by Applicable Law, Verizon may at any time establish a wholesale discount for a Telecommunications Service (including, but not limited to, a CSA) that differs from the wholesale discount that is generally applicable to Telecommunications Services provided to Bandwidth for resale pursuant to Section 251(c)(4) of the Act.
- 2.1.4 The wholesale discount stated in Appendix A shall be automatically superseded by any new wholesale discount when such new wholesale discount is required by any order of the Commission or the FCC, approved by the Commission or the FCC, or otherwise allowed to go into effect by the Commission or the FCC, provided such new wholesale discount is not subject to a stay issued by any court of competent jurisdiction.
- 2.1.5 The wholesale discount provided for in Sections 2.1.1 through 2.1.3 of this Attachment shall not be applied to:
- 2.1.5.1 Short term promotions as defined in 47 CFR § 51.613;

- 2.1.5.2 Except as otherwise provided by Applicable Law, Exchange Access services;
 - 2.1.5.3 Subscriber Line Charges, Federal Line Cost Charges, end user common line Charges, taxes, and government Charges and assessment (including, but not limited to, 9-1-1 Charges and Dual Party Relay Service Charges).
 - 2.1.5.4 Any other service or Charge that the Commission, the FCC, or other governmental entity of appropriate jurisdiction determines is not subject to a wholesale discount under Section 251(c)(4) of the Act.
- 2.2 Verizon Telecommunications Services for which Verizon is Not Required to Provide a Wholesale Discount Pursuant to Section 251(c)(4) of the Act.
- 2.2.1 The Charges for a Verizon Telecommunications Service for which Verizon is not required to provide a wholesale discount pursuant to Section 251(c)(4) of the Act shall be the Charges stated in Verizon's Tariffs for such Verizon Telecommunications Service (or, if there are no Verizon Tariff Charges for such Service, Verizon's Charges for the Service that are generally offered by Verizon).
 - 2.2.2 The Charges for a Verizon Telecommunications Service customer specific contract service arrangement ("CSA") purchased by Bandwidth pursuant to Section 3.3 of the Resale Attachment for which Verizon is not required to provide a wholesale discount pursuant to Section 251(c)(4) of the Act shall be the Charges provided for in the CSA and any other Charges that Verizon could bill the person to whom the CSA was originally provided (including, but not limited to, applicable Verizon Tariff Charges).
- 2.3 Other Charges.
- 2.3.1 Bandwidth shall pay, or collect and remit to Verizon, without discount, all Subscriber Line Charges, Federal Line Cost Charges, and end user common line Charges, associated with Verizon Telecommunications Services provided by Verizon to Bandwidth.

3. **Bandwidth Prices**

Notwithstanding any other provision of this Agreement, the Charges that Bandwidth bills Verizon for Bandwidth's Services shall not exceed the Charges for Verizon's comparable Services, except to the extent that Bandwidth's cost to provide such Bandwidth's Services to Verizon exceeds the Charges for Verizon's comparable Services and Bandwidth has demonstrated such cost to Verizon, or, at Verizon's request, to the Commission or the FCC.

4. **[This Section Intentionally Left Blank]**

5. **Regulatory Review of Prices**

Notwithstanding any other provision of this Agreement, each Party reserves its respective rights to institute an appropriate proceeding with the FCC, the Commission or other governmental body of appropriate jurisdiction: (a) with regard to the Charges for its Services (including, but not limited to, a proceeding to change the Charges for its services, whether provided for in any of its Tariffs, in Appendix A, or otherwise); and (b)

with regard to the Charges of the other Party (including, but not limited to, a proceeding to obtain a reduction in such Charges and a refund of any amounts paid in excess of any Charges that are reduced).

APPENDIX A TO THE PRICING ATTACHMENT^{1 2}
(SOUTH CAROLINA)
V1.8

I. Rates and Charges for Transport and Termination of Traffic³

A. Reciprocal Compensation Traffic Termination

Reciprocal Compensation Traffic End Office Rate: **\$0.0048270♦ per minute of use.**

Reciprocal Compensation Traffic Tandem Rate: **\$0.0072350♦ per minute of use.**

B. The Tandem Transit Traffic Service Charge is **\$0.0022320♦ per minute of use.**

C. Entrance Facility and Transport for Interconnection Charges: **See Intrastate Special Access Tariff**

D. Exchange Access Service: **Per Verizon interstate and/or Verizon intrastate access tariff**

¹ This Appendix may contain rates for (and/or reference) services, facilities, arrangements and the like that Verizon does not have an obligation to provide under the Agreement (e.g., services, facilities, arrangements and the like that Verizon is not required to provide under Section 251 of the Act). Notwithstanding any such rates (and/or references) and, for the avoidance of any doubt, nothing in this Appendix shall be deemed to require Verizon to provide a service, facility, arrangement or the like that the Agreement does not require Verizon to provide, or to provide a service, facility, arrangement or the like upon rates, terms or conditions other than those that may be required by the Agreement.

All rates and charges set forth in this Appendix shall apply until such time as they are replaced by new rates and/or charges as the Commission or the FCC may approve or allow to go into effect from time to time, subject however, to any stay or other order issued by any court of competent jurisdiction. In addition to any rates and charges set forth herein, Verizon, effective as of March 11, 2005, may, but shall not be required to, charge (and Bandwidth shall pay) any rates and charges that apply to a CLEC's embedded base of certain UNEs pursuant to the FCC's Order on Remand, *Unbundled Access to Network Elements; Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers*, WC Docket No. 04-313, CC Docket No. 01-338 (FCC rel. Feb. 4, 2005) (the "TRRO"), the foregoing being without limitation of other rates and charges that may apply under subsequent FCC orders or otherwise. In addition, as set forth in Industry Notices, access tariff rates and/or other applicable non-UNE rates may apply for certain facilities and arrangements that are no longer available as unbundled network elements or combinations thereof.

² Certain of the rates and charges set forth within, as indicated by a "diamond" (♦), are arbitrated rates taken from the previously arbitrated Interconnection, Resale and Unbundling Agreement between GTE and AT&T Communications, which was approved by the Commission in an Interim Order dated March 17, 1997 in Docket Number 96-375-C. Verizon has agreed to use and to incorporate herein such arbitrated rates subject to the following: The Parties expressly agree (1) that such arbitrated rates shall not be deemed to have been voluntarily negotiated by the Parties, and (2) that, if applicable, for purposes of calculating Reciprocal Compensation Traffic, the arbitrated rates shall not apply to Internet Traffic, as set forth more fully in the Interconnection Attachment of this Agreement. The foregoing shall not, in any way, limit any other term, condition, limitation or reservation of right in the Agreement that applies to rates, including, but not limited to the reservation of Rights language of the General Terms and Conditions. The Parties further agree that the Commission's Order Docket Number 96-375-C, to the extent such Order established the arbitrated rates, shall be deemed an "arbitration decision associated with this Agreement" under the General Terms and Conditions.

³ All rates and charges specified herein are pertaining to the Interconnection Attachment.

II. **Services Available for Resale**

The avoided cost discount for all Resale Services is 18.66%.

Non-Recurring Charges (NRCs) for Resale Services

Pre-ordering

CLEC Account Establishment Per CLEC	\$273.09
Customer Record Search Per Account	\$ 11.69

Ordering and Provisioning

Engineered Initial Service Order (ISO) - New Service	\$311.98
Engineered Initial Service Order - As Specified	\$123.84
Engineered Subsequent Service Order	\$ 59.61
Non-Engineered Initial Service Order - New Service	\$ 42.50
Non-Engineered Initial Service Order - Changeover	\$ 21.62
Non-Engineered Initial Service Order - As Specified	\$ 82.13
Non-Engineered Subsequent Service Order	\$ 19.55
Central Office Connect	\$ 12.21
Outside Facility Connect	\$ 68.30
Manual Ordering Charge	\$ 12.17

Product Specific

NRCs, other than those for Pre-ordering, Ordering and Provisioning, and Custom Handling as listed in this Appendix, will be charged from the appropriate retail tariff. No discount applies to such NRCs.

Custom Handling

Service Order Expedite:	
Engineered	\$ 35.48
Non-Engineered	\$ 12.59

Coordinated Conversions:

ISO	\$ 17.76
Central Office Connection	\$ 10.71
Outside Facility Connection	\$ 9.59

Hot Coordinated Conversion First Hour:

ISO	\$ 30.55
Central Office Connection	\$ 42.83
Outside Facility Connection	\$ 38.34

Hot Coordinated Conversion per Additional Quarter Hour:

ISO	\$ 4.88
Central Office Connection	\$ 9.43
Outside Facility Connection	\$ 8.37

Application of NRCs

Pre-ordering:

CLEC Account Establishment is a one-time charge applied the first time that Bandwidth orders any service from this Agreement.

Customer Record Search applies when Bandwidth requests a summary of the services currently subscribed to by the end-user.

Ordering and Provisioning:

Engineered Initial Service Order - New Service applies per Local Service Request (LSR) when engineering work activity is required to complete the order, e.g. digital loops.

Non-Engineered Initial Service Order - New Service applies per LSR when no engineering work activity is required to complete the order, e.g. analog loops.

Initial Service Order - As Specified (Engineered or Non-Engineered) applies only to Complex Services for services migrating from Verizon to Bandwidth. Complex Services are services that require a data gathering form or have special instructions.

Non-Engineered Initial Service Order - Changeover applies only to Basic Services for services migrating from Verizon to Bandwidth. End-user service may remain the same or change.

Central Office Connect applies in addition to the ISO when physical installation is required at the central office.

Outside Facility Connect applies in addition to the ISO when incremental fieldwork is required.

Manual Ordering Charge applies to orders that require Verizon to manually enter Bandwidth's order into Verizon's Secure Integrated Gateway System (SIGS), e.g. faxed orders and orders sent via physical or electronic mail.

Custom Handling (These NRCs are in addition to any Preordering or Ordering and Provisioning NRCs):

Service Order Expedite applies if Bandwidth requests service prior to the standard due date intervals.

Coordinated Conversion applies if Bandwidth requests notification and coordination of service cut-over prior to the service becoming effective.

Hot Coordinated Conversion First Hour applies if Bandwidth requests real-time coordination of a service cut-over that takes one hour or less.

Hot Coordinated Conversion Per Additional Quarter Hour applies, in addition to the Hot Coordinated Conversion First Hour, for every 15-minute segment of real-time coordination of a service cut-over that takes more than one hour.

III. Prices for Unbundled Network Elements⁴

Monthly Recurring Charges

Local Loop

2 Wire Analog Loop (inclusive of NID)	\$	18.00 ♦
4 Wire Analog Loop (inclusive of NID)	\$	28.80 ♦
2 Wire Digital Loop (inclusive of NID)	\$	18.00 ♦
4 Wire Digital Loop (inclusive of NID)	\$	28.80 ♦
DS-1 Loop	\$	125.11
DS-3 Loop	\$	1515.42

Supplemental Features:

ISDN-BRI Line Loop Extender	\$	5.69
DS1 Clear Channel Capability	\$	23.74

Sub-Loop

2-Wire Distribution	\$	21.13
4-Wire Distribution	\$	37.97
2-Wire Drop	\$	3.62
4-Wire Drop	\$	3.89
Inside Wire	BFR	

Network Interface Device (leased separately)

Basic NID:	\$	1.45 ♦
Complex (12 x) NID	\$	2.10 ♦

Dedicated Transport Facilities

Interoffice Dedicated Transport:

IDT DS0 Transport Facility per ALM	\$.36
IDT DS0 Transport Termination	\$	15.08
IDT DS1 Transport Facility per ALM	\$	6.70
IDT DS1 Transport Termination	\$	30.00
IDT DS3 Transport Facility per ALM	\$	32.45
IDT DS3 Transport Termination	\$	184.55

Multiplexing (Dedicated Transport):

DS1 to Voice Multiplexing	\$	190.00
DS3 to DS1 Multiplexing	\$	267.35
DS1 Clear Channel Capability	\$	23.74

⁴ For the avoidance of any doubt, in addition to any rates and charges set forth herein, Verizon, effective as of March 11, 2005, may, but shall not be required to, charge (and Bandwidth shall pay) any rates and charges that apply to a CLEC's embedded base of certain UNEs pursuant to the TRRO, the foregoing being without limitation of other rates and charges that may apply under subsequent FCC orders or otherwise; in addition, as set forth in Industry Notices, access tariff rates and/or other applicable non-UNE rates may apply for certain facilities and arrangements that are no longer available as unbundled network elements or combinations thereof.

Unbundled Dark Fiber

Unbundled Dark Fiber Loops		
Dark Fiber Loop	\$	67.13
Unbundled Dark Fiber Dedicated Transport		
Dark Fiber IDT –Facility	\$	24.80
Dark Fiber IDT –Termination	\$	6.34
Intermediate Office Cross Connect		TBD

EEL Pricing

MRCs. The MRCs for an EEL will generally be equal to the applicable MRCs for UNEs and Multiplexing that comprise an EEL arrangement (e.g. UNE Loop, IDT, Multiplexing, & Clear Channel Capability).

Line Splitting (also referred to as “Loop Sharing”)^{5 6}

A. Unbundled Local Loops

As Applicable per this Appendix A for UNE Local 2-Wire Digital (DSL qualified) Loops Monthly Recurring Charges and Non-Recurring Charges as amended from time to time. Includes, without limitation, Recurring 2-Wire Digital (DSL qualified) Loop Charges, Service Order Charge (per order), Service Connection Charge* (per loop), Service Connection-Other Charge* (per loop), and Provisioning charges. Also includes, without limitation, if applicable, Field Dispatch, TC Not Ready, Loop Qualification, Engineering Query, Engineering Work Order, Trouble Dispatch, Misdirects, Dispatch In, Out, and Dispatch Expedites, Installation Dispatch, Manual Intervention, Expedited, Digital Designed Recurring and Non-Recurring Charges

B. Other Charges

i. Regrade \$8.09 NRC

ii. *Service Connection

***Service Connection/Other**

A second Service Connection NRC and Service Connection/Other NRC applies on New Loop Sharing Arrangements involving the connection of both voice and data connections.

iii. Disconnect

A disconnect NRC applies, as applicable, on total Loop Sharing disconnects.

iv. Line and Station Transfers

/Pair Swaps

A LST/Pair Swap NRC applies, as applicable, on LST activity performed on New Loop Sharing Arrangements.

C. Collocation Rates

Collocation Rates (including, without limitation, Splitter Connection and Installation Rates)

As Applicable per this Appendix A.

⁵ Rates for the individual line splitting components are contained in existing terms for Unbundled Network Elements and Collocation.

⁶ This Pricing Attachment incorporates by reference the rates set forth in the Agreement for the services and charges referenced herein. In the event this Pricing Attachment refers to a service that is not available under the Agreement, the Agreement shall control. Nothing in this Appendix A shall be deemed to require Verizon to provide a service that the Agreement does not require Verizon to provide.

NON-RECURRING CHARGES – LOOP

Service Ordering (Loop)		
Initial Service Order, per order	\$	51.20 ♦
Transfer of Service Charge, per order	\$	16.00
Subsequent Service Order, per order	\$	24.00
Installation		
Unbundled Loop, per loop	\$	25.00
Loop Facility Charge, per order (See Note 1)	\$	67.00

CUSTOM HANDLING

Coordinated Conversions:		
ISO	\$	17.76
Central Office Connection	\$	9.43
Outside Facility Connection	\$	8.09
Hot Coordinated Conversions First Hour:		
ISO	\$	23.91
Central Office Connection	\$	37.72
Outside Facility Connection	\$	32.36
Hot Coordinated Conversions per Additional Quarter Hour:		
ISO	\$	4.88
Central Office Connection	\$	9.43
Outside Facility Connection	\$	8.37

Note 1: The Loop Facility Charge will apply when fieldwork is required for establishment of a new unbundled loop service.

NON-RECURRING CHARGES - OTHER UNEs

LOCAL WHOLESALE SERVICES	Ordering 100% Manual	Ordering Semi- Mech.	Provisioning Initial Unit	Add'l Unit
UNBUNDLED NID				
Exchange – Basic	\$ 27.06	\$ 18.83	\$ 33.99	N/A
UNBUNDLED SUB-LOOP				
Exchange - FDI Distribution Interconnection - Initial	\$ 36.32	\$ 26.88	\$ 61.90	\$ 30.36
Exchange - FDI Distribution Interconnection - Subsequent	\$ 15.01	\$ 11.83	\$ 16.99	\$ 7.22
Exchange - Serving Terminal Interconnection - Initial	\$ 36.32	\$ 26.88	\$ 28.99	\$ 15.51
Exchange - Serving Terminal Interconnection - Subsequent	\$ 15.01	\$ 11.83	\$ 13.23	\$ 6.41
UNBUNDLED DARK FIBER				
Advanced - Service Inquiry Charge	\$405.87	\$405.65	N/A	N/A
Advanced - Interoffice Dedicated Transport - Initial	\$ 64.80	\$ 64.57	\$267.28	\$224.68
Advanced - Unbundled Loop - Initial	\$ 64.80	\$ 64.57	\$261.86	\$220.43
Dark Fiber Records Review (with reservation)	TBD			
Intermediate Office Cross Connect	TBD			
Dark Fiber Optional Engineering Services	TBD			
ENHANCED EXTENDED LINK LOOPS (EELs) Loop portion (In addition, IDT charges apply if applicable to the EEL arrangement))				
Advanced - Basic (2-wire and 4-wire) - Initial	\$ 88.39	\$ 56.13	\$ 25.00	N/A
Advanced - Basic (2-wire and 4-wire) - Subsequent	\$ 38.02	\$ 21.89	\$ 25.00	N/A
DS1/DS3 - Initial	\$ 97.94	\$ 65.68	\$ 25.00	N/A
DS1/DS3 - Subsequent	\$ 38.02	\$ 21.89	\$ 25.00	N/A
DS3 to DS1 Multiplexer	N/A	N/A	\$450.00	N/A
DS1 to DS0 Multiplexer	N/A	N/A	\$800.00	N/A
Changeover Charge - (Conversion from Special Access to EELs or Transport)				
Advanced - Basic (2-wire and 4-wire) Changeover (As Is)	\$161.87	\$ 99.77	\$ 41.64	N/A
Advanced - Basic (2-wire and 4-wire) Changeover (As Is)- Additional MOG (Mass Order Generator) Only	\$ 7.52	\$ 4.56	\$ 41.64	N/A
Advanced - Complex (DS1 and above) Changeover (As Is)	\$179.37	\$117.27	\$ 41.64	N/A
Advanced - Complex (DS1 and above) Changeover (As Is)- Additional MOG (Mass Order Generator) Only	\$ 7.52	\$ 4.56	\$ 41.64	N/A

LOOP CONDITIONING⁷
(No charge for loops 12,000 feet or less)

Loop Conditioning - Bridged Tap	N/A	N/A	\$318.71	\$ 34.88
Loop Conditioning - Load Coils	N/A	N/A	\$249.91	N/A
Loop Conditioning - Load Coils / Bridged Tap	N/A	N/A	\$568.62	\$ 34.88

LINE AND STATION TRANSFER⁸

	N/A	N/A	\$147.75	N/A
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INTEROFFICE DEDICATED TRANSPORT(IDT) (Also applies to IDT portion of an EEL arrangement)

Advanced (2-wire and 4-wire) - Basic - Initial	\$ 95.49	\$ 63.01	\$428.58	N/A
Advanced (2-wire and 4-wire) - Basic - Subsequent	\$ 45.12	\$ 28.77	\$ 58.20	N/A
Advanced (DS1 and above) - Complex - Initial	\$105.04	\$ 72.56	\$584.49	N/A
Advanced (DS1 and above) - Complex - Subsequent	\$ 45.12	\$ 28.77	\$ 86.80	N/A

EXPEDITES

Exchange Products	\$ 3.36	\$ 3.36	N/A	N/A
Advanced Products	\$ 25.80	\$ 25.80	N/A	N/A

OTHER

Customer Record Search (per account)	\$ 4.21	N/A	N/A	N/A
CLEC Account Establishment (per CLEC)	\$166.32	\$166.32	N/A	N/A
Design Change Charge - EELs and Transport	\$ 27.00	\$ 27.00	N/A	N/A

ROUTINE NETWORK MODIFICATIONS

ENGINEERING QUERY ¹⁰	N/A	N/A	\$ 183.99	N/A
ENGINEERING WORK ORDER ¹¹	N/A	N/A	\$ 94.40	N/A
EXPEDITE ENGINEERING QUERY ^{10, 12}	N/A	N/A	\$ 41.67	N/A

⁷ These charges are interim and subject to retroactive true-up back to the Effective Date of this Agreement.

⁸ A Line and Station Transfer (LST) Charge applies when Verizon arranges or rearranges an individual circuit at a terminal or cross-connect box to free up a pair or suitable facility at the required service location; examples include an arrangement of copper to DLC, the rearrangement of IDLC to copper and the rearrangement of IDLC to UDLC.

⁹ This Appendix may contain rates and charges for (and/or reference) services, facilities, arrangements and the like that Verizon does not have an obligation to provide under the Agreement (e.g., services, facilities, arrangements and the like for which an unbundling requirement does not exist under 47 U.S.C. Section 251(c)(3)). Notwithstanding any such rates and/or charges (and/or references) and, for the avoidance of any doubt, nothing in this Appendix shall be deemed to require Verizon to provide a service, facility, arrangement or the like that the Agreement does not require Verizon to provide, or to provide a service, facility, arrangement or the like upon rates, terms or conditions other than those that may be required by the Agreement.

¹⁰ Engineering Query Charges apply in addition to charges for actual network modification and Engineering Work Order charges where applicable.

¹¹ Engineering Work Order Charges apply in addition to charges for actual network modification and Engineering Query charges where applicable.

¹² Expedite Charges apply in addition to other listed rates.

EXPEDITE ENGINEERING WORK ORDER11'12	N/A	N/A	\$ 27.94	N/A
ROUTINE NETWORK MODIFICATIONS				
CLEAR DEFECTIVE PAIR	N/A	N/A	\$ 272.35	N/A
REASSIGNMENT OF NON-WORKING CABLE PAIR	N/A	N/A	\$ 272.35	N/A
BINDER GROUP REARRANGEMENT	N/A	N/A	\$ 529.77	N/A
REPEATER - INSTALLATION	N/A	N/A	\$1,597.10	N/A
APPARATUS CASE - INSTALLATION	N/A	N/A	\$2,992.81	N/A
RANGE EXTENDERS - DS-0 Installation	N/A	N/A	\$ 809.72	N/A
RANGE EXTENDERS - DS-1 Installation	N/A	N/A	\$ 809.72	N/A
CHANNEL UNIT TO UNIVERSAL/COTTED DLC SYSTEM (existing)	N/A	N/A	\$ 170.30	N/A
SERVING TERMINAL - INSTALLATION / UPGRADE	N/A	N/A	Time and Material	N/A
ACTIVATE DEAD COPPER PAIR	N/A	N/A	\$ 199.90	N/A
MULTIPLEXER - 1/0 - INSTALLATION	N/A	N/A	\$12,211.41	N/A
MULTIPLEXER - 1/0 - RECONFIGURATION	N/A	N/A	\$ 170.30	N/A
MULTIPLEXER - 3/1 - INSTALLATION	N/A	N/A	\$26,981.19	N/A
MULTIPLEXER - 3/1 - RECONFIGURATION	N/A	N/A	\$ 382.34	N/A
MULTIPLEXER - OTHER - INSTALLATION	N/A	N/A	Time and Material	N/A
MOVE DROP	N/A	N/A	\$ 109.28	N/A
CROSS-CONNECTION - EXISTING FIBER FACILITY	N/A	N/A	\$ 346.93	N/A
LINE CARD - INSTALLATION	N/A	N/A	\$ 314.63	N/A
COPPER REARRANGEMENT	N/A	N/A	\$ 482.90	N/A
CENTRAL OFFICE TERMINAL - INSTALLATION	N/A	N/A	\$35,307.87	N/A
IDLC ONLY CONDITION	N/A	N/A	\$36,847.28	N/A
OTHER REQUIRED MODIFICATIONS	N/A	N/A	Time and Material	N/A
OTHER				
Commingled Arrangements – per circuit NRC	N/A	N/A	\$ 50.00	N/A
Conversion - Service Order	N/A	N/A	\$ 19.33	N/A
Conversion - Installation per circuit	N/A	N/A	\$ 7.27	N/A
Circuit Retag - per circuit	N/A	N/A	\$ 59.43	N/A
DARK FIBER				
Dark Fiber Routine Network Modifications	N/A	N/A	Time and Material	N/A

Application of NRCs

Preordering:

CLEC Account Establishment is a one-time charge applied the first time that Bandwidth orders any service from this Agreement.

Customer Record Search applies when Bandwidth requests a summary of the services currently subscribed to by the end-user.

Ordering and Provisioning:

Initial Service Order (ISO) applies to each Local Service Request (LSR) and Access Service Request (ASR) for new service. Charge is Manual (e.g. for a faxed order) or Semi-Mechanized (e.g. for an electronically transmitted order) based upon the method of submission used by the CLEC.

Subsequent Service Order applies to each LSR/ASR for modifications to an existing service. Charge is Manual or Semi-Mechanized based upon the method of submission used by the CLEC.

Advanced ISO applies per LSR/ASR when engineering work activity is required to complete the order.

Exchange ISO applies per LSR/ASR when no engineering work activity is required to complete the order.

Provisioning – Initial Unit applies per ISO for the first unit installed. The Additional Unit applies for each additional unit installed on the same ISO.

Basic Provisioning applies to services that can be provisioned using standard network components maintained in inventory without specialized instructions for switch translations, routing, and service arrangements.

Complex Provisioning applies to services that require special instruction for the provisioning of the service to meet the customer's needs.

Examples of services and their Ordering/Provisioning category that applies:

Exchange-Basic: 2-Wire Analog, 4-Wire Analog, Standard Sub-Loop Distribution, Drop and NID.

Exchange-Complex: Non-loaded Sub-Loop Distribution and Loop Conditioning.

Advanced-Basic: 2-Wire Digital Loop, 4-Wire Digital Loop

Advanced-Complex: DS1 Loop, DS3 Loop, Dark Fiber and EELs.

Conditioning applies in addition to the ISO, for each Loop or Sub-Loop UNE for the installation and grooming of Conditioning requests.

DS1 Clear Channel Capability applies in addition to the ISO, per DS1 for the installation and grooming of DS1 Clear Channel Capability requests.

Changeover Charge applies to EEL orders when an existing retail, resale, or special access service is already in place.

Service Inquiry – Dark Fiber applies per service inquiry when a CLEC requests Verizon to determine the availability of dark fiber on a specific route.

EELs - The NRCs that generally apply to an EEL arrangement are applicable ordering & provisioning charges for EEL Loops, IDT, Multiplexing and Clear Channel Capability

Custom Handling (These NRCs are in addition to any Preordering or Ordering and Provisioning NRCs)

Service Order Expedite applies if Bandwidth requests service prior to the standard due date intervals and the expedite request can be met by Verizon.

Coordinated Conversion applies if Bandwidth requests notification and coordination of service cut-over prior to the service becoming effective.

Hot Coordinated Conversion First Hour applies if Bandwidth requests real-time coordination of a service cut-over that takes one hour or less.

Hot Coordinated Conversion Per Additional Quarter Hour applies, in addition to the Hot Coordinated Conversion First Hour, for every 15-minute segment of real-time coordination of a service cut-over that takes more than one hour.

Design Change Charge applies to EELs & Transport orders for design changes requested by the CLEC.

IV. Rates and Charges for 911

See State Tariff.

V. Collocation Rates

See SC Intrastate Access Tariff Section 18, Collocations Services.

**EXHIBIT A TO SECTION 3.1 (FIBER MEET ARRANGEMENT) OF THE INTERCONNECTION
ATTACHMENT**

Technical Specifications and Requirements

for

**Bandwidth - VERIZON SOUTH INC.
Fiber Meet Arrangement No. [XX]**

The following technical specifications and requirements will apply to Bandwidth - Verizon South Inc. Fiber Meet Arrangement [NUMBER] ("FM No. [XX]");

1. FM No. [XX] will provide interconnection facilities for the exchange of applicable traffic (as set forth in the Amendment) between Verizon's [NAME OF TANDEM/END OFFICE] and Bandwidth's [NAME OF TANDEM/END OFFICE] in the State of South Carolina. A diagram of FM No. [XX] is included as Exhibit A-1.
2. Fiber Meet Points ("FMPs").
 - 2.1 FM No. [XX] will be configured as shown on Exhibit A-1. FM No. [XX] will have two FMPs. Neither FMP is more than three (3) miles from the nearest Verizon Tandem or End Office.
 - 2.2 Verizon will provision a Fiber Network Interface Device ("FNID") at [POLE XX, STREET YY, TOWN ZZ, STATE] and terminate [] strands of its fiber optic cable in the FNID. The FNID provisioned by Verizon will be a [MANUFACTURER, MODEL]. Verizon will bear the cost of installing and maintaining its FNID. The fiber patch panel within Verizon's FNID will serve as FMP No. 1. Verizon will provide a fiber stub at the fiber patch panel in Verizon's FNID for Bandwidth to connect [] strands of its fiber cable [] connectors. Verizon's FNID will be locked, but Verizon and Bandwidth will have 24 hour access to their respective side of the fiber patch panel located in Verizon's FNID.
 - 2.3 Bandwidth will provision a FNID at [POLE XX, STREET YY, TOWN ZZ, STATE] and terminate [] strands of its fiber optic cable in the FNID. The FNID provisioned by Bandwidth will be a [MANUFACTURER, MODEL]. Bandwidth will bear the cost of installing and maintaining its FNID. The fiber patch panel within Bandwidth's FNID will serve as FMP No. 2. Bandwidth will provide a fiber stub at the fiber patch panel in Bandwidth's FNID for Verizon to connect [] strands of its fiber cable. Bandwidth's FNID will be locked, but Bandwidth and Verizon will have 24 hour access to their respective side of the fiber patch panel located in Bandwidth's FNID.
3. Transmission Characteristics.
 - 3.1 FM No. [XX] will be built [as a ring configuration].
 - 3.2 The transmission interface for FM No. [XX] will be [Synchronous Optical Network ("SONET")].

- 3.3 Terminating equipment shall comply with [SONET transmission requirements as specified in Telcordia Technologies document GR-253 CORE (Tables 4-3 through 4-11)].
- 3.4 The optical transmitters and receivers shall provide adequate power for the end-to-end length of the fiber cable to be traversed.
- 3.5 The optical transmission rate will be [Unidirectional] OC-[XX].
- 3.6 The path switch protection shall be set as [Non-Revertive].
- 3.7 Verizon and Bandwidth shall provide [Primary Reference Source traceable timing].
- 4. Add Drop Multiplexer.
 - 4.1 Verizon will, at its own cost, obtain and install (at its own premise) its own Add Drop Multiplexer. Verizon will use a [MANUFACTURER, MODEL] Add Drop Multiplexer with firmware release of [X.X] at the network level. Before making any upgrade or change to the firmware of its Add Drop Multiplexer, Verizon must provide Bandwidth with fourteen (14) days advance written notice that describes the upgrade or change to its firmware and states the date on which such firmware will be activated in Verizon's Add Drop Multiplexer.
 - 4.2 Bandwidth will, at its own cost, obtain and install (at its own premise) its own Add Drop Multiplexer. Bandwidth will use a [MANUFACTURER, MODEL] Add Drop Multiplexer with firmware release of [X.X] at the network level. Before making any upgrade or change to the firmware of its Add Drop Multiplexer, Bandwidth must provide Verizon with fourteen (14) days advance written notice that describes the upgrade or change to its firmware and states the date on which such firmware or software will be activated in Bandwidth's Add Drop Multiplexer.
 - 4.3 Bandwidth and Verizon will monitor all firmware upgrades and changes to observe for any failures or anomalies adversely affecting service or administration. If any upgrade or change to firmware adversely affects service or administration of FM No. [XX], the firmware will be removed from the Add Drop Multiplexer and will revert to the previous version of firmware.
 - 4.4 The Data Communication Channel shall be disabled between the Verizon and Bandwidth Add Drop Multiplexers of FM No. [XX].
- 5. Testing.
 - 5.1 Prior to turn-up of FM No. [XX], Verizon and Bandwidth will mutually develop and implement testing procedures for FM No. [XX]
- 6. Connecting Facility Assignment ("CFA") and Slot Assignment Allocation ("SAA").
 - 6.1 For one-way and two-way trunk arrangements, the SAA information will be turned over to Bandwidth as a final step of turn up of the FM No. [XX].
 - 6.2 For one-way trunk arrangements, Verizon will control the CFA for the subtending facilities and trunks connected to Verizon's slots and Bandwidth will control the CFA for the subtending facilities and trunks connected to Bandwidth's slots. Bandwidth will place facility orders against the first half of the *fully configured*

slots (for example, slots 1-6 of a fully configured OC12) and Verizon will place orders against the second half of the slots (for example, slots 7-12). If either Party needs the other Party's additional slot capacity to place orders, this will be negotiated and assigned on a case-by-case basis. For SAA, Verizon and Bandwidth shall jointly designate the slot assignments for Verizon's Add Drop Multiplexers and Bandwidth's Add Drop Multiplexer in FM No. [XX].

- 6.3 For two-way trunk arrangements, Bandwidth shall control the CFA for the subtending facilities and trunks connected to FM No. [XX]. Bandwidth shall place facility and trunk orders against the total available SAA capacity of FM No. [XX].

7. Inventory, Provisioning and Maintenance, Surveillance, and Restoration.

- 7.1 Verizon and Bandwidth will inventory FM No. [XX] in their operational support systems before the order flow begins.
- 7.2 Verizon and Bandwidth will notify each other's respective Maintenance Control Office of all troubleshooting and scheduled maintenance activity to be performed on FM No. [XX] facilities prior to undertaking such work, and will advise each other of the trouble reporting and maintenance control point contact numbers and the days and hours of operation. Each Party shall provide a timely response to the other Party's action requests or status inquiries.
- 7.3 Verizon will be responsible for the provisioning and maintenance of the FM No. [XX] transport facilities on Verizon's side of the FMPs, as well as delivering its applicable traffic to the FMPs. Bandwidth will be responsible for the provisioning and maintenance of the FM No. [XX] transport facilities on the Bandwidth's side of the FMPs, as well as delivering its applicable traffic to the FMPs. As such, other than payment of any applicable intercarrier compensation charges pursuant to the terms of the Agreement, neither Party shall have any obligation to pay the other Party any charges in connection with FM No. [XX].
- 7.4 Verizon and Bandwidth will provide alarm surveillance for their respective FM No. [XX] transport facilities. Verizon and Bandwidth will notify each other's respective maintenance control office of all troubleshooting and scheduled maintenance activity to be performed on the facility prior to undertaking such work, and will advise each other of the trouble reporting and maintenance control point contact numbers and the days and hours of operation.

8. Cancellation or Modification of FM No. [XX].

- 8.1 Except as otherwise provided in this Section 8, all expenses and costs associated with the construction, operation, use and maintenance of FM No. [XX] on each Party's respective side of the FMPs will be borne by such Party.
- 8.2 If either Party terminates the construction of the FM No. [XX] before it is used to exchange traffic, the Party terminating the construction of FM No. [XX] will compensate the other Party for that Party's reasonable actual incurred construction and/or implementation expenses.
- 8.3 If either Party proposes to move or change FM No. [XX] as set forth in this document, at any time before or after it is used to exchange traffic, the Party requesting the move or change will compensate the other Party for that Party's reasonable actual incurred construction and/or implementation expenses.

Augments, moves and changes to FM No. [XX] as set forth in this document must be mutually agreed upon by the Parties in writing.

BANDWIDTH.COM CLEC, LLC

VERIZON SOUTH INC.

By: _____

Date: _____

TO BE EXECUTED AT A LATER DATE

Exhibit A-1

**Bandwidth - VERIZON SOUTH INC.
Fiber Meet Arrangement No. [XX]**

City, State